

MILWAUKIE DOWNTOWN AND RIVERFRONT PLAN

PUBLIC AREA REQUIREMENTS



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MILWAUKIE, OREGON

Public Area Requirements

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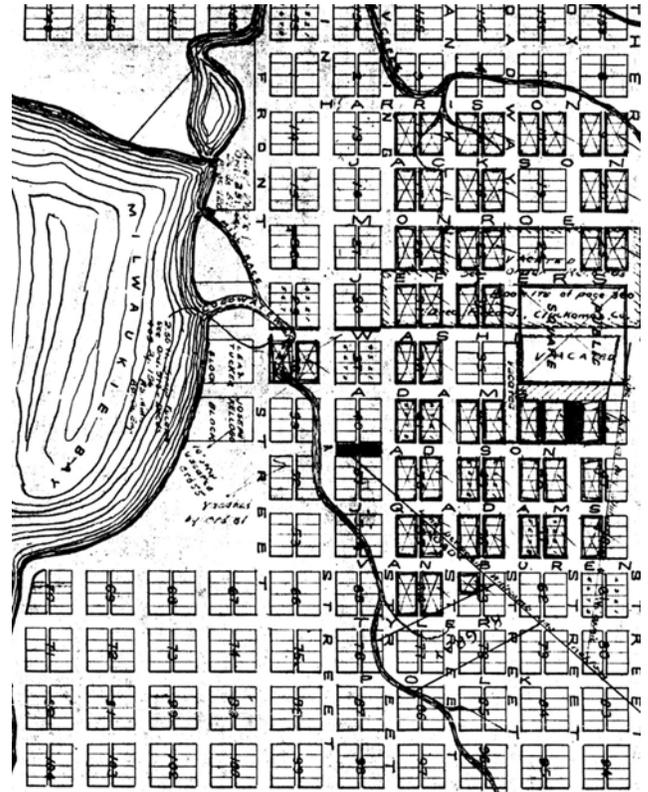
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Introduction

History

In the mid-nineteenth century, Milwaukie's founders devised a circulation system along the banks of the Willamette River. Carved out of the wilderness, the street grid fostered efficient and compact development, enabled development to have easy access, and allowed for multiple property owners to share the costs and benefits of the street system. The street grid established a framework of 210' by 210' blocks suitable for a mix of retail, housing and industry. Throughout most of downtown, this gridded street system remains largely as the City Founders had envisioned. The Downtown and Riverfront Land Use Framework Plan prescribes a network of streets and pedestrianways that will reestablish the grid where it has been lost and strengthen it where it has been eroded.



Historic grid of Milwaukie streets, 1865.

Introduction

Linking Land Use and Transportation

The design of roadways must carefully balance their function as conduits for movement of people, goods and services with the needs of retail, housing and open space uses. To allow Downtown Milwaukie to thrive, a detailed framework has been established which carefully considers and repairs the circulation system. The plan:

- Ensures that McLoughlin Boulevard serves as a regional boulevard, yet does not separate the community from its greatest asset, the Willamette River.
- Reestablishes Main Street as the retail heart of the community.
- Reestablishes the street grid north of Harrison to provide better transit, commercial and housing access.
- Provides a network of separate pedestrian and bicycle walkways and trails that links parks and open spaces with downtown and adjacent neighborhoods.

What This Framework Does

This document defines all elements of the circulation framework for the Downtown and Riverfront Plan. It guides the development of capital improvement programs for public right-of-way areas, and provides standards and requirements for improvements at the time of development or redevelopment of key private parcels adjacent to the right-of-way. Key parcels standards and requirements are provided in this document for the North Main Redevelopment Site and for parcels that may include a rail trail adjacent to the current Union Pacific Railroad right-of-way.

Other than for those key private parcels, this document does not prescribe requirements for the design of roadways, alleys or parking facilities of private parcels.

Circulation Framework

The Framework:

- Provides guidance for the development of public rights-of-way, trails, walkways, and transit facilities.
- Is consistent with the City Transportation System Plan.
- Is consistent with Metro's Regional Transportation Plan.
- Considers requirements of Oregon Department of Transportation's Highway 99E requirements.

The Circulation Framework is described in full detail in the following three elements:

- 1. General Circulation Requirements**
- 2. Street Standards**
- 3. Design Details**

1. General Circulation Requirements

The General Circulation Requirements identify all components, location, requirements and restrictions of the Downtown and Riverfront Plan. The requirements:

- Describe all proposed improvements.
- Identify and specify special areas of concern such as access restricted streets.

2. Street Standards

The Street Standards establish all public right-of-way dimensions and components within the Downtown and Riverfront planning area. The street standards set forth requirements for:

- Travel Lanes
- Medians
- On-street Parking
- Type and location of parallel or angled on-street parking
- Bicycle Lanes
- Sidewalks
- Pathways

3. Design Details

The design details provide specific construction details and design criteria that ensure that a consistent high-quality public right-of-way is designed throughout the Downtown and Riverfront planning area.

Details are provided for:

- Streets
- Sidewalks
- Landscape
- Street Lights
- Street Furniture
- Bicycle Facilities

1. General Circulation Requirements

The general circulation requirements identify all component locations, requirements and restrictions of the Downtown and Riverfront Plan.

Proposed Improvements

Proposed improvements of all public rights-of-way are consistent with the City of Milwaukie Transportation System Plan (adopted ordinance #1820, July 15, 1999) and the Metro-approved resolution No. 99 - 2878B 1999 Regional Transportation Plan.

For the most part, streets will maintain their current alignment with the following exceptions:

- The street system will include an extension of 21st Avenue north of Harrison Street to Main Street.
- Main Street between Washington and Adams Street will become a pedestrian street. South of Adams Street, Main Street will be vacated.
- Scott Street will be vacated and relocated approximately 200' to the north.
- Adams Street will be vacated.

Options

The General Circulation Plan provides a series of options for treatment of walkways and street amenities. The intent is to provide alternatives that can be refined and cost estimates developed before a single design is selected. The preferred option should then be used throughout to ensure uniformity in character and quality.

Phasing

The Plan provides for both major and incremental changes. For major improvements - i.e. Main Street - full block length changes are suggested to minimize business disruptions.

In other locations, more incremental, property-by-property improvements may be possible. However, in many instances, curb lines will need to be relocated and sidewalk widths may be widened, thereby precluding incremental change. In these cases, changes by individual property owners must meet as many of the requirements prescribed herein as determined by the city Public Works Director and Planning Director.

New and Vacated Streets

The Plan, in an effort to establish the historic street grid and provide access for new development, includes new roadways on private and public property. These roadways should be constructed concurrently with new development. The roadways should be publicly dedicated to and maintained by the City of Milwaukie.

Roadways are vacated to ensure that the new development is consistent with the land use framework and the requirements of the zoning ordinance. Scott Street and Adams Street would be vacated only in the event that a development proposal of assembled parcels would require the use of the right-of-way as part of a development scheme (as determined by the Planning Director).

General Circulation Requirements

1.1 Streets

McLoughlin Boulevard

McLoughlin Boulevard is an important arterial roadway, envisioned as serving the region. As a “regional boulevard,” it is to be a road with limited access or egress points, to maintain mobility and improve safety through downtown. Signalized intersections provide pedestrian crossing points. Signals at the far northern and southern points of the boulevard are planned for long-term or as needed.

Main Street

Downtown Milwaukie’s primary retail street is Main Street, between Washington and the current location of Scott Street. This part of Main Street provides a pedestrian environment that fosters retail use by including special area zones for uses such as cafe seating and by offering adequate short-term on-street parking.

Safety improvements to Main Street include curb extensions at corners and special concrete crosswalks. Nighttime safety of people and businesses on the street is enhanced by providing new pedestrian-scale ornamental lighting and traffic signals.

Two alternative sidewalk treatments, scored concrete or brick, are provided to break down the scale of the sidewalk. New landscaping at intersections and mid-blocks provides color, softens the expanse of concrete and reduces glare.

North of Harrison Street, Main Street also serves as a primary transit access street.

Cross Streets

Cross streets with east-west orientation provide access to Main Street, McLoughlin Boulevard and 21st Avenue in Downtown Milwaukie. They are intended for local access, not as alternative routes to or through adjacent neighborhoods. Cross streets are appropriate for providing mid-block or alley access to parking lots and structures. Where feasible, additional on-street parking is provided on cross streets. Full signalized intersections on McLoughlin are identified at Washington, Monroe and Harrison Streets and left turn lanes are provided. At Jackson and Jefferson Streets, right-in, right-out access is prescribed. Pedestrian access to the riverfront from cross streets is limited to signalized intersections only. Loading zones are allowed on these streets. Harrison Street serves as the primary transit access street.

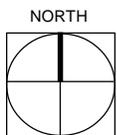
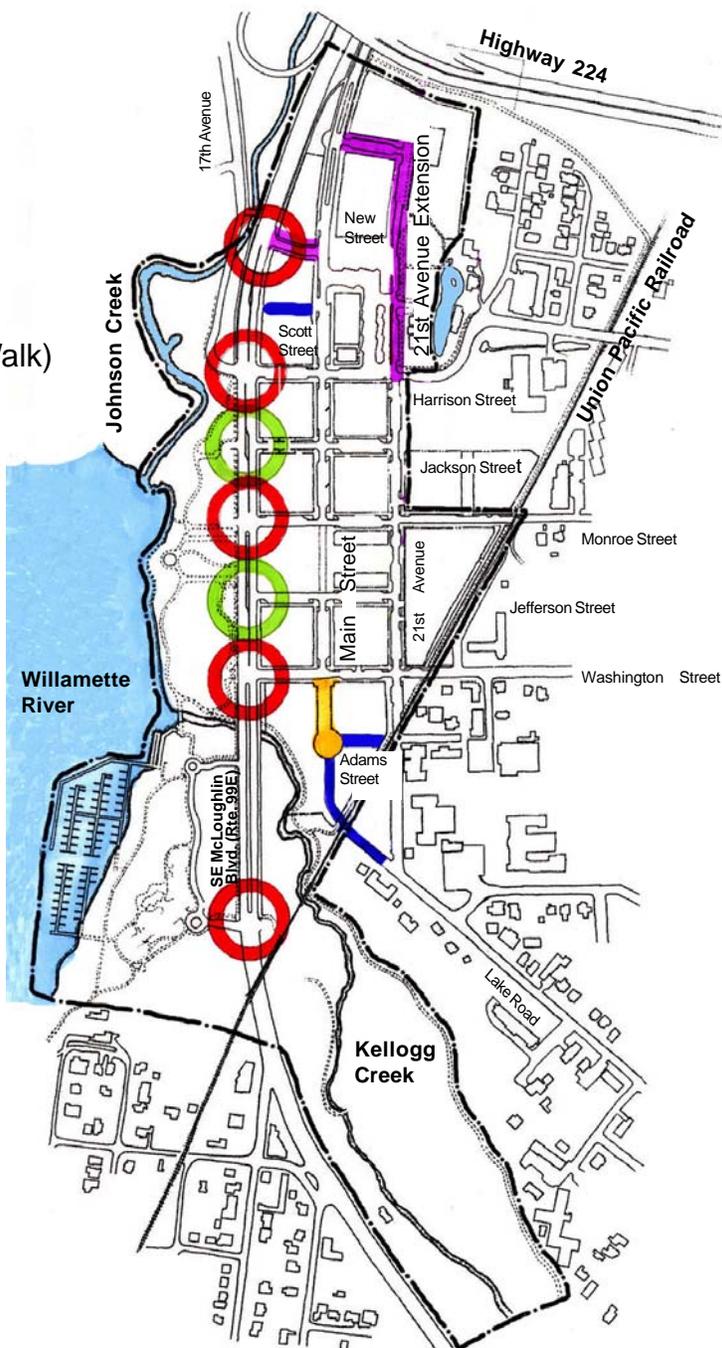
21st Avenue

21st Avenue serves as a north south access street to the downtown from Lake Road. It also offers access to the North Main Redevelopment Site from routes originating and terminating south of Milwaukie. An extension of 21st Avenue is planned north of Harrison Street to improve auto and pedestrian access to redevelopment blocks, the North Main Redevelopment Site and the Ledding Library.

General Circulation Requirements

1.2 Streets Diagram

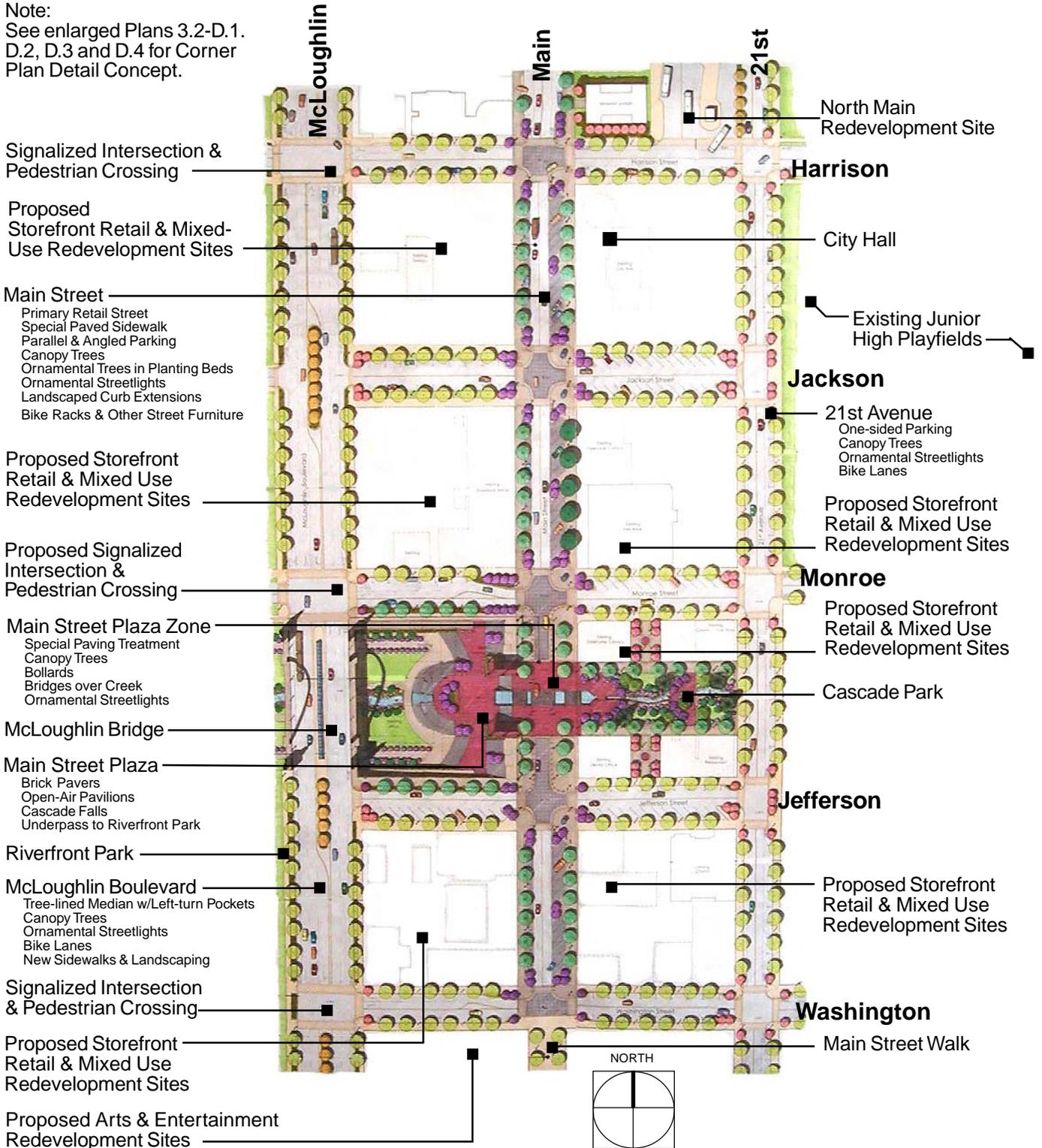
-  Existing Roadways
-  New Public Roadways
-  Vacated Roadway
-  Pathway (Main Street Walk)
-  Signalized Intersection
-  "Right-In, Right-Out Only" Intersection (no signal)



General Circulation Requirements

1.3 Streetscape Illustrative Plan

Note:
See enlarged Plans 3.2-D.1, D.2, D.3 and D.4 for Corner Plan Detail Concept.



General Circulation Requirements

1.4 Recreation Pathways and Riverfront Access

Framework

The pedestrian/bicycle recreation pathways framework connects to regional routes such as the Springwater Corridor. Within the Downtown and Riverfront Plan area, pedestrian walkways and trails establish a network and loop of recreational routes that are mostly independent of the roadway system. The intent of this system is to provide quiet, safe relaxed and comfortable access to parks and open spaces.

The framework integrates the walkway system into the downtown by providing greenways which reach into the downtown. The routes are generally intended for day-time use. However, the framework provides a lighted pathway along the Willamette River. All routes will be accessible to the disabled, including a possible boardwalk planned through new Kellogg Creek wetlands.

Proposed routes (except for a connection under McLoughlin Boulevard to Kellogg Creek) are above the average high water elevation at 18.5'. No significant structures will be constructed within the 100-year flood plain.

A Rail Trail is planned adjacent to the Union Pacific Railroad right-of-way. The corridor would be acquired for this at the time of development, either by purchase or establishing a public access easement. The walkway would include a safety fence and landscaping to provide separation between pedestrians, bicyclists and trains.

Framework Elements

Primary Trail

The trail along the Willamette River includes ornamental lighting, benches, and information signs. The trail follows Kellogg Creek inland and loops up along the Union Pacific Railroad right-of-way to connect with the Springwater Corridor Trail.

Access Pathways

Landscaped, paved and lighted pedestrian and bicycle accessways connect all areas within and outside downtown. Pedestrian lighting, benches, and information signs may be included.

Viewpoints

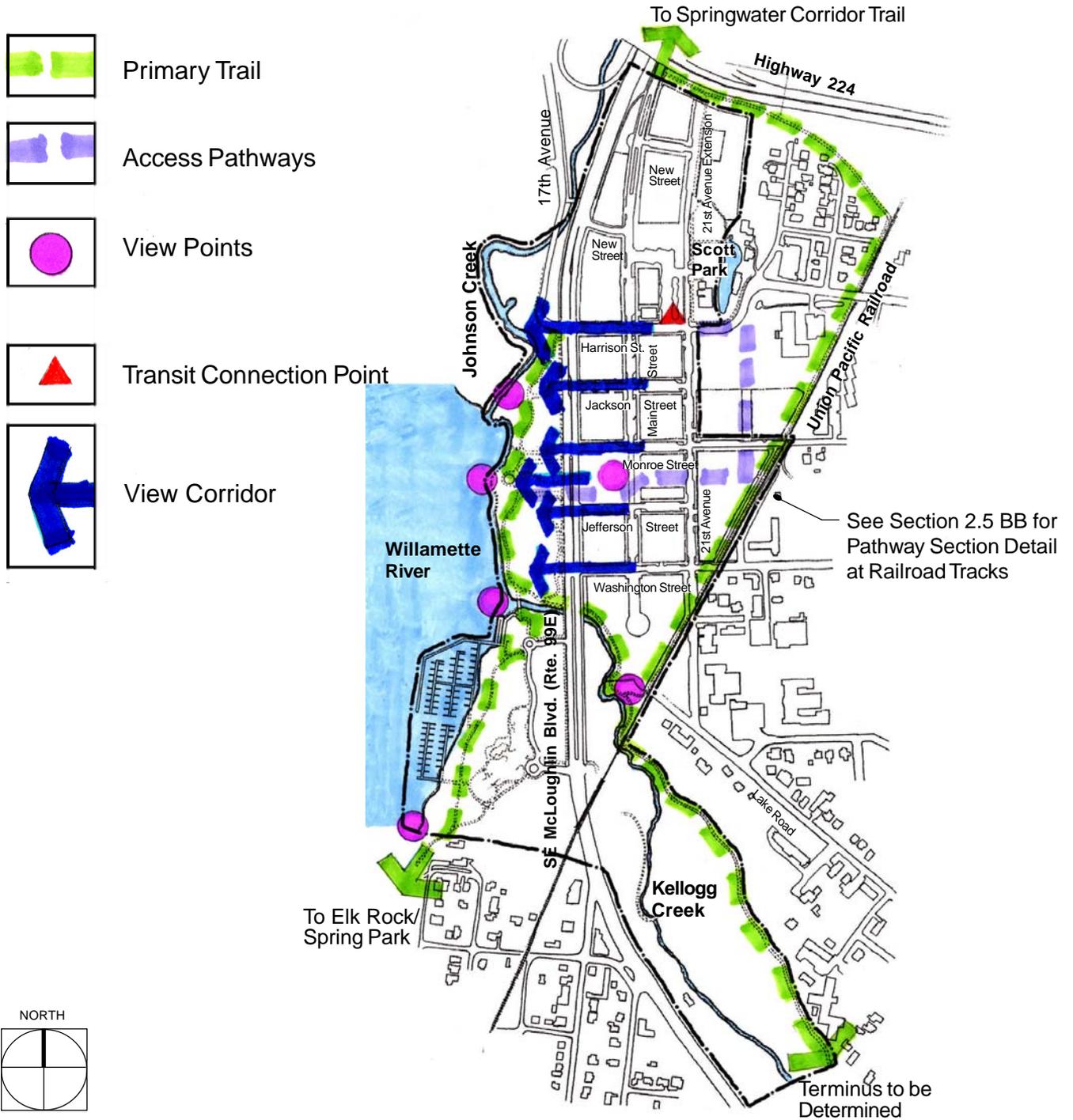
Throughout the walkway system, viewpoints are located at special areas of interest or where exceptional vistas or panoramas occur. At these points, special signs, lighting, seating or landscaping are appropriate.

View Corridor

View corridors are intended to provide a clear, unobstructed visual connection between existing neighborhoods, downtown and the Willamette River. Clear sight lines must be maintained between these areas. Power lines, overhead utilities and other obstructions must be minimized in these corridors.

General Circulation Requirements

1.5 Recreation Pathways and Riverfront Access Diagram



General Circulation Requirements

1.6 Bicycle Facilities

Bicycle facilities are consistent with the City of Milwaukie Transportation Plan. Planned bikeways provide access into downtown Milwaukie from adjacent neighborhoods and provide connections to other regional destinations such as Clackamas Town Center and Oregon City. Increased bike use in the downtown area will reduce auto congestion and noise and decrease demand for automobile parking spaces.

Providing space on the road for cyclists is important to encourage bicycle use. Bikeways indicated in the plan include 5' and 6' bike lanes, signed bike routes, and recreation trails shared with pedestrians.

The plan requires 5' bike lanes on all streets designated as bikeways where curbside parking is not a necessity, or where there is enough curb-to-curb width to allow for auto travel lanes, bike lanes and curbside parking. The plan requires 6' bike lanes on McLoughlin Boulevard.

Appropriate signs to mark the route and warn motorists of the presence of cyclists should be placed along designated bikeways, with or without bike lanes consistent with the State of Oregon Motor Vehicle Code.

The plan provides for bike lanes or bike routes on Harrison, Monroe and Washington Streets to connect with neighborhoods to the east. Bike lanes on McLoughlin Boulevard and 21st Avenue/Lake Road connect to the south. North connections are made on the existing 17th Avenue lane and planned lanes on Main Street north of Harrison Street. Bike access through downtown occurs on 21st Avenue from

Lake Road to Harrison Street and then shifts over to Main Street north of Harrison. The connection on Harrison from Main Street to the existing 17th Avenue bike lane includes a 13'-6" shared lane in the westbound direction (instead of a 5' bike lane) to accommodate an adjacent auto left-turn lane. The eastbound connection is facilitated on a 5' bike lane.

The plan also includes bike routes on shared pathways with pedestrians (see 1.6 and 1.7 Pedestrian/Bicycle Recreation Walkways and Riverfront Access).

Bicycle Parking

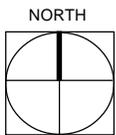
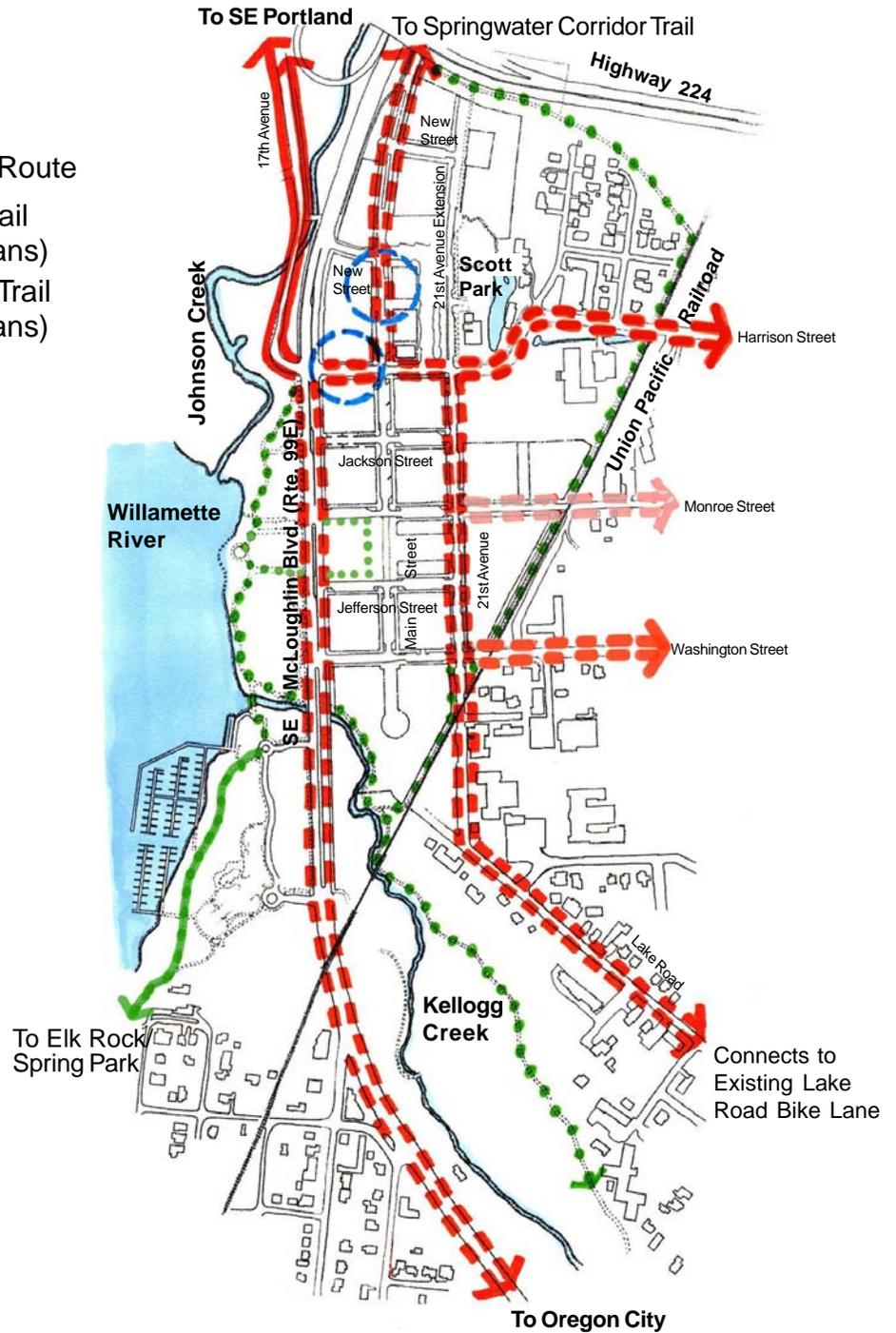
Bicycle use is further encouraged when bike parking is provided at places of business, parks, employment centers, or public facilities such as the Ledding Library. Each block of Main Street should include bike racks within the right-of-way that can accommodate eight bikes at a minimum. On cross streets, bike racks accommodating a minimum of 4 bikes should be provided. Larger businesses or public facilities should include long-term bike parking for both visitors and employees.

The Tri-Met transit center should include secure, indoor bike parking for 30 to 60 bicycles, as part of the transit-oriented development site. Milwaukie's bus transit center has significant potential to draw multi-modal bike commuters due to the number of residences within a 2-mile radius, the lack of an automobile park-and-ride facility, and the planned network of bike routes that connect to the transit center.

General Circulation Requirements

1.7 Bikeways Diagram

-  Existing Bike Lane
-  Planned Bike Lane
-  Planned Signed Bike Route
-  Existing Recreation Trail (Shared with Pedestrians)
-  Proposed Recreation Trail (Shared with Pedestrians)
-  Shared Travel Lane



General Circulation Requirements

1.8 Transit Center

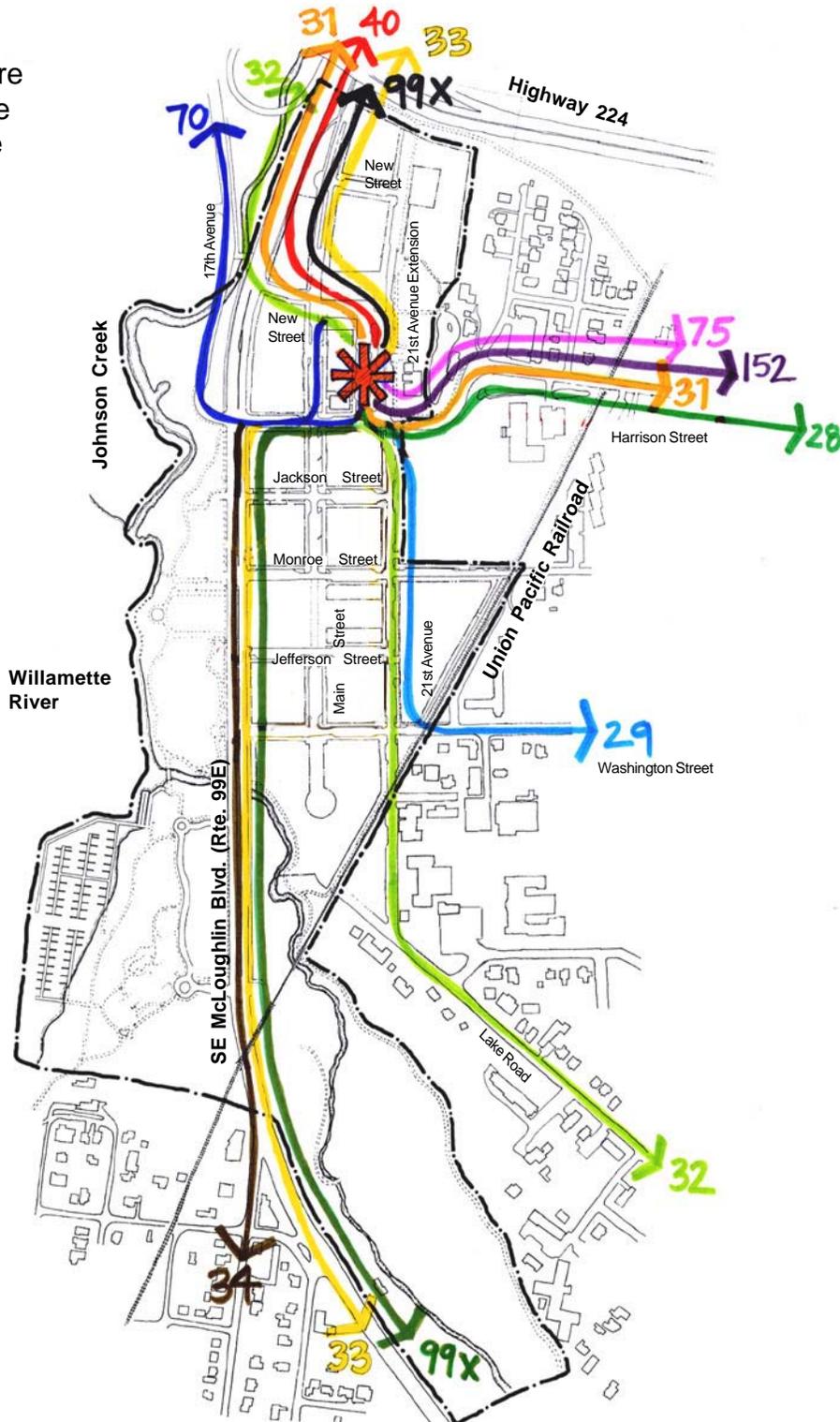
Information to be supplied once new Transit Center determined.



General Circulation Requirements

1.9 Transit Routes Diagram

Note:
Existing routes are subject to change pending final site selection of the Transit Center.



General Circulation Requirements

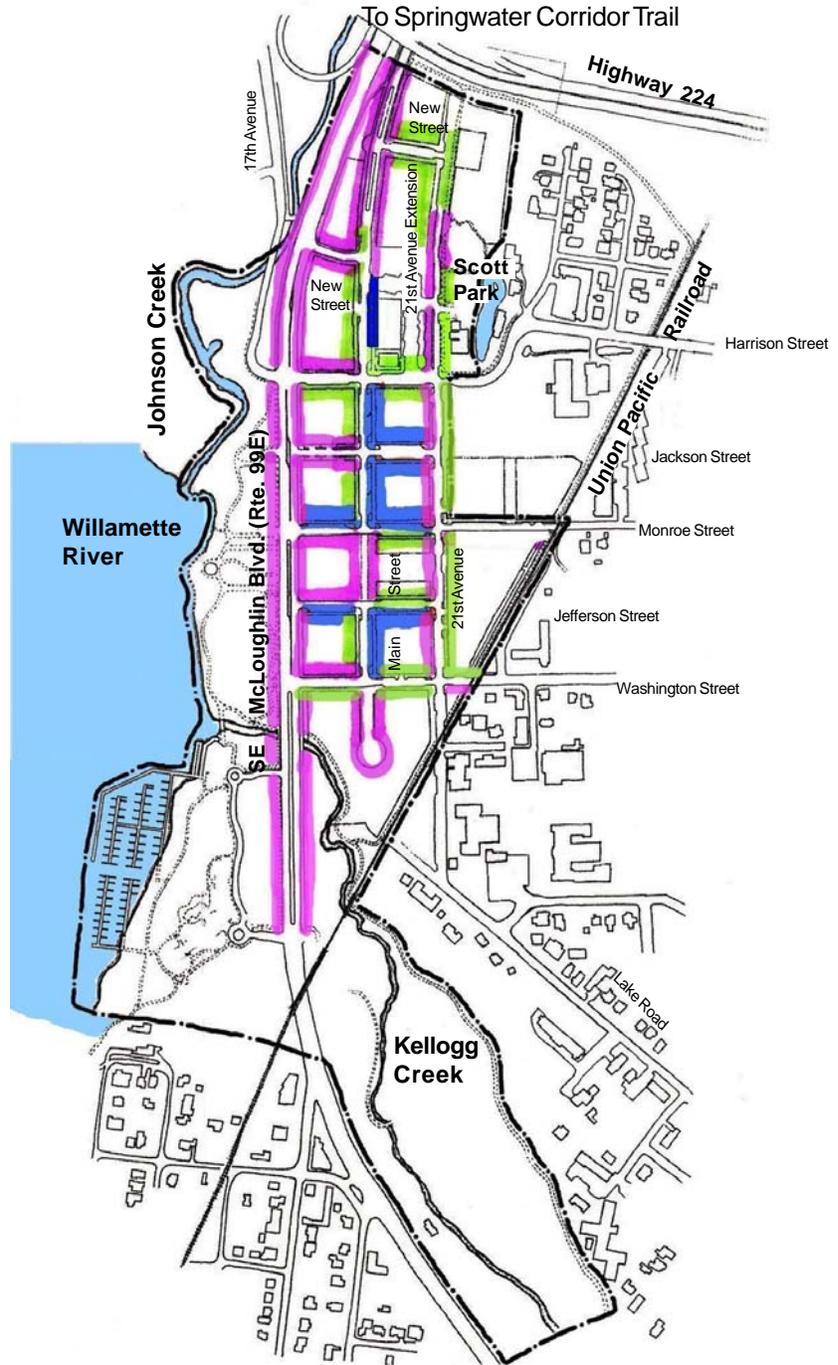
1.10 Required On-Street Parking

On-street parking ensures that convenient short-term parking is provided for patrons of downtown retail establishments. This parking will be angled or parallel to the curbside depending on street function. Main Street will be the major location of on-street parking, to encourage activity and shopping on the central blocks of downtown.

General Circulation Requirements

1.11 Required On-Street Parking

-  No Parking
-  Parallel (Curbside) Parking
-  Angled Parking



General Circulation Requirements

1.12 Parking Access Restricted Streets

Main Street has the greatest pedestrian and retail use emphasis. Between Harrison Street and Washington Street, curb cuts, driveways, garage entries and other auto accessways are prohibited to avoid conflicts between autos and pedestrians, and to maintain continuity along the retail frontage (subject to exceptions that may be granted by the Planning Commission.)

McLoughlin Boulevard is a regional boulevard with an emphasis on a significant amount of motor vehicle traffic mixed with public transportation, bicycle and pedestrian travel. On McLoughlin Boulevard, curb cuts, driveways, garage entries and other accessways are prohibited, to avoid dangerous and congestion-inducing auto turning conflicts.

Non-Conforming Uses

Currently a number of auto-oriented uses provide curb cuts to allow easy access from McLoughlin Boulevard. These access points are nonconforming with the city's existing zoning ordinance. Existing access points which do not conform will be allowed to remain until time of alteration of the existing use or reconstruction of McLoughlin Boulevard.

General Circulation Requirements

1.13 Parking Access Restricted Streets Diagram



Streets where parking access prohibited or is limited

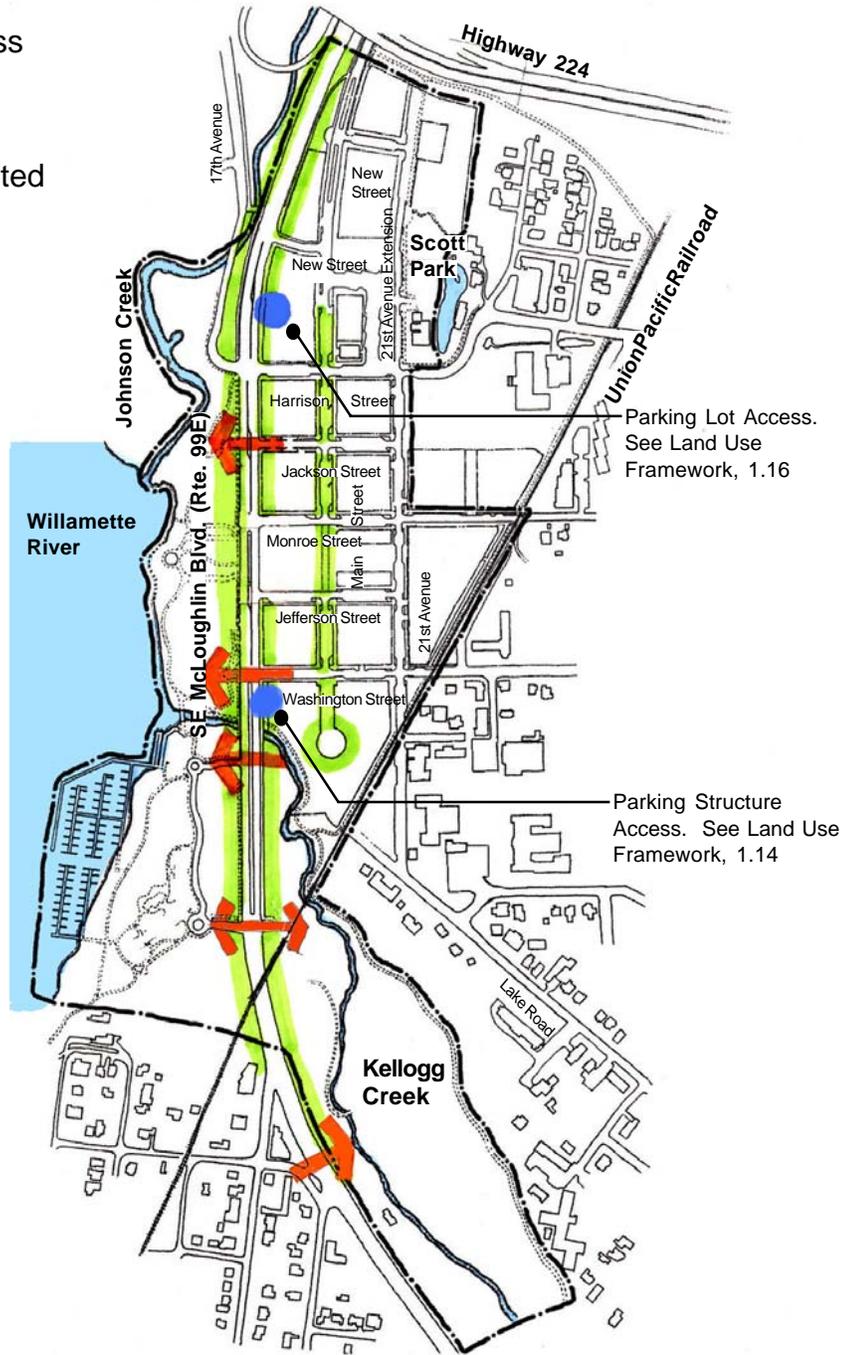


McLoughlin Boulevard Limited Access Point (no left turn)



Restricted Riverfront Park Access Points

Note:
Loading zones are prohibited along Main Street between Harrison and Washington.



General Circulation Requirements

1.14 Street Trees

Street trees have been selected to soften expanses of concrete, provide an enclosed and intimate streetscape, and improve air quality. A variety of street trees - selected in large part by the Milwaukie Downtown Development Association--comprises the planting palette. All trees have been selected with maintenance in mind. None of the planting materials selected will block sight lines or severely impact buildings or walkways.

Incense Cedar

Incense Cedar trees are indicated along the west side of the railroad track where they function as a buffer between the pedestrian and bicycle pathway and the railroad tracks. They have a columnar shape that will not interfere with the adjacent train, and their dense, evergreen foliage forms an effective edge.

Chanticleer Pear or Honey Locust

These medium size trees are indicated at cross streets where they help reinforce the contrasting east-west orientation of the streets. Their upright form or light branching patterns will not obstruct view corridors to the Willamette River.

Kwanzan Cherry

Ornamentals are indicated at Main Street intersection corners, to provide accent color at all intersections. Kwanzan Cherry offers pink spring blossoms as accent color.

Red Maple

Red Maples are indicated as the primary street tree for Main Street and 21st Avenue. They provide a broad canopy and beautiful fall color yet require little maintenance.

Red Oak

Red Oaks are indicated at McLoughlin Boulevard through the downtown area - repeating and complementing the rows of Red Oaks along McLoughlin at Sellwood Park.

Frans Fontaine Hornbeam

Upright Ornamental trees are indicated in the median along McLoughlin. They provide a contrast to the Red Oaks lining each side of McLoughlin and are well-suited for median planting because they will not obstruct travel lanes. The Frans Fontaine Hornbeam, with glossy dark green foliage, is appropriate along McLoughlin Boulevard.

Sequoia

Sequoia trees form gateways into Milwaukie from the north and south. They are indicated along McLoughlin north of the new street, where they extend the planting theme north of Highway 224 and south of the entrance road to the proposed hotel.

General Circulation Requirements

1.15 Street Trees Diagram

 Incense Cedar

 Red Oak

 Upright
Ornamental

 Flowering
Ornamental

 Red Maple

 Chanticleer Pear
or Honey Locust

 Sequoia

Sequoia

Chanticleer Pear
or Honey Locust

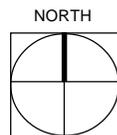
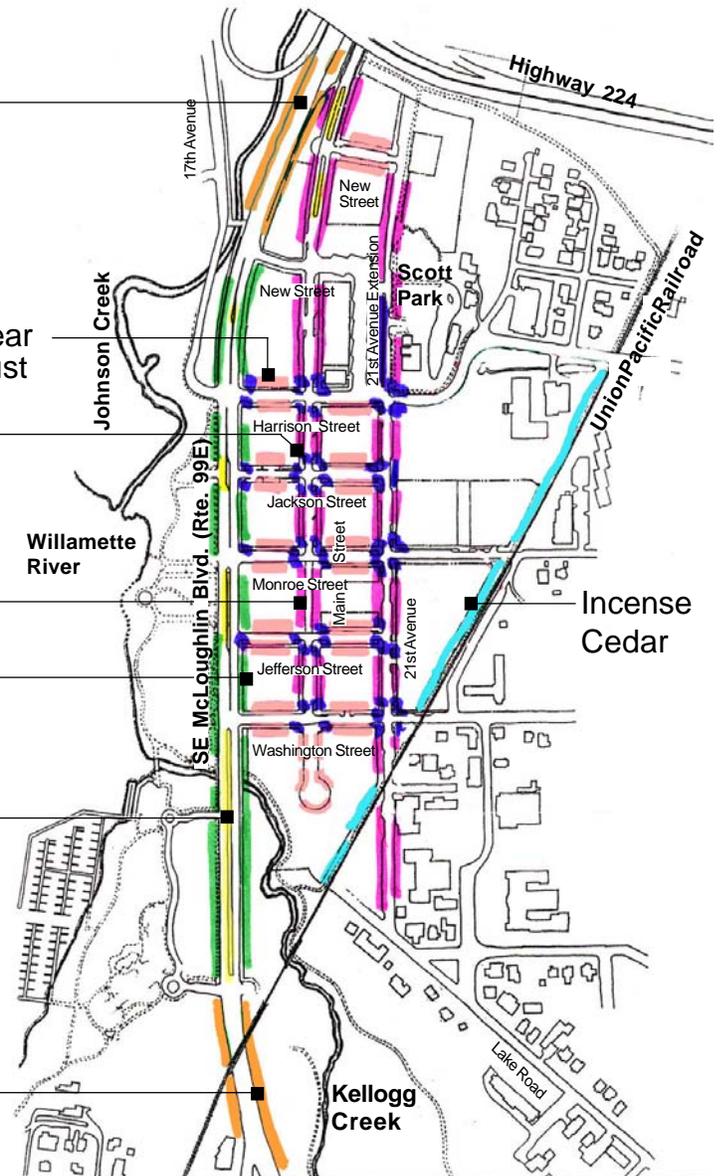
Flowering
Ornamental

Red Maple

Red Oak

Upright
Ornamental
Tree

Sequoia



General Circulation Requirements

1.16 Street Lights

Street lights that are ornamental and pedestrian-scaled (14' high posts) contribute to the character of the street. The rhythmic spacing of the lights helps to provide a “human” scale and to define and enclose the street.

The plan calls for a hierarchy of three ornamental street light types. Each type is related to the function of the street, providing and contributing to the street’s identity and character.

Single Head Ornamental

The single head ornamental street lights are specified at cross streets, at the North Main Redevelopment Site, along 21st street, and on Main Street north of Harrison Street. They give a pedestrian scale to these streets, as well as to the pathways along the Riverfront Park and the Willamette River, where they are also used.

Double Head Ornamental

The double head ornamental type is pedestrian in scale. This light type is indicated along Main Street, at the Main Street plaza connecting to Riverfront Park, and at the pedestrian-only Main Street Walk.

Ornamental Cobra Head

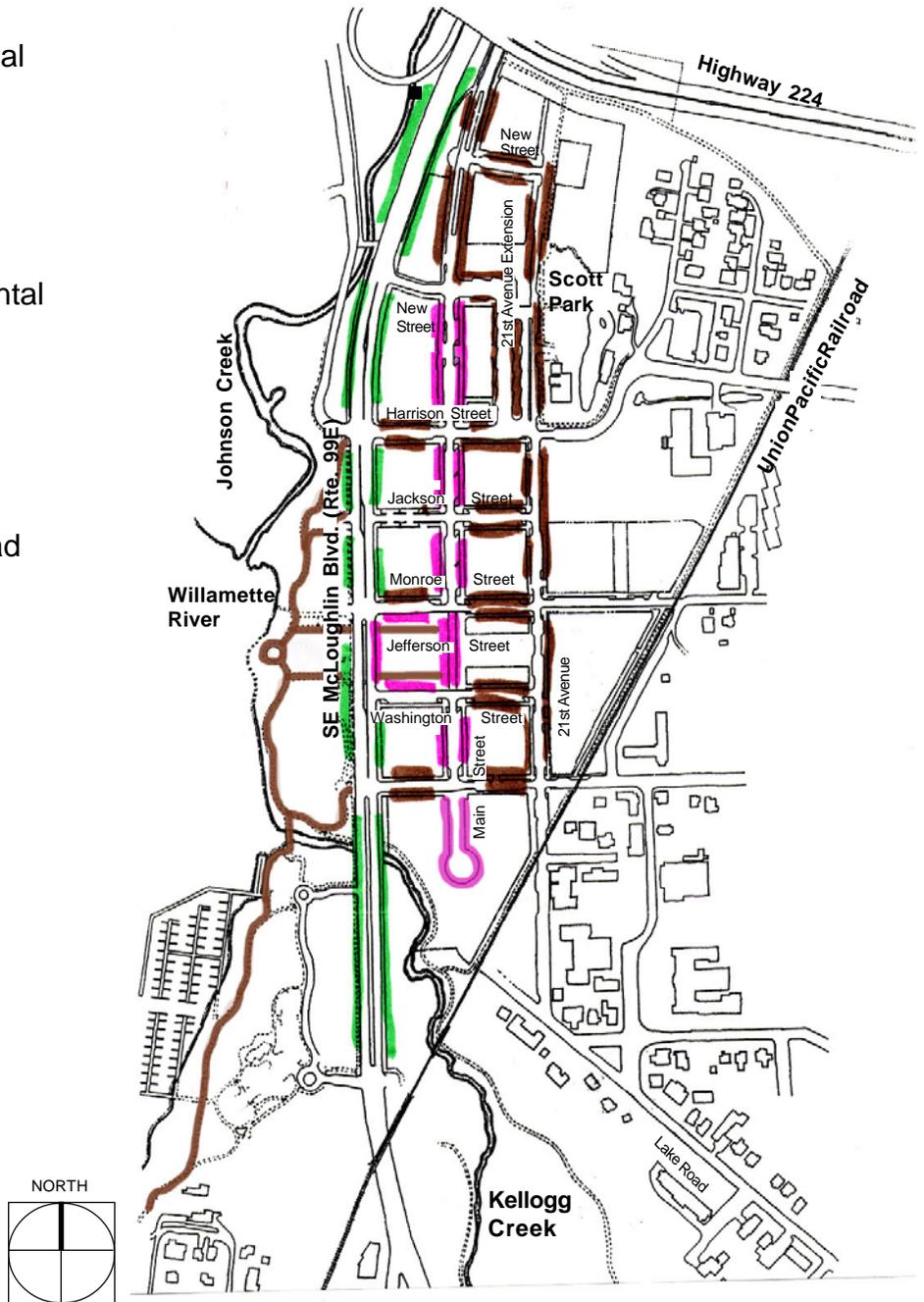
Ornamental cobra head types are prescribed exclusively along McLoughlin Boulevard and thus are scaled for automobiles, yet provide traditional character for downtown and safely light auto and bicycle lanes.

Light types for downtown Milwaukie are described in greater detail in “Section 3.4-Street Lights” of this document.

General Circulation Requirements

1.17 Required Street Lights Diagram

-  Single Head Ornamental
-  Double Head Ornamental
-  Ornamental Cobra Head



2. Street Standards

The street sections in Section 2.5 of this document are consistent with Milwaukie's Transportation System Plan (TSP) and Metro's Regional Transportation Plan (RTP).

Street classifications for Downtown Milwaukie are based on the current functional classification system as defined in the TSP (see TSP Figure 6.1, *Revised Functional Classification*) with the following modification: McLoughlin Boulevard is classified as a "Regional Boulevard" as defined in the RTP, rather than the TSP classification of "Regional Route".

Implementation of Street Standards

Section 2.5 illustrates typical street cross sections and streetscape amenities for various downtown locations. Design details in Sections 2.5 and 2.6 shall be followed to the greatest extent practicable. However, certain features shown in the typical designs may require modification at the design stage due to dimensional constraints, design requirements for traffic management, or future needs not presently known.

Classification and Function

The functional street classification system for the downtown is based on the standard arterial, collector and local system described in Milwaukie's TSP. The system arises from the need for both mobility and access. For example, roadways classified as arterials emphasize the relatively higher and continuous speeds required for mobility, while roadways classified as local streets emphasize the low speeds required for land access. Roadways classified as collectors

offer a balance of both functions. Streets may be classified as more than one type, as their function may change over their length.

All modes of transportation and the adjacent land uses need to be considered to determine the specific design characteristics of that street. The overall requirements of a street cross-section depend on the range of functions that the street must perform. For example, a street with a high level of pedestrian activity would be designed differently from a street carrying primarily through auto traffic. The TSP proposed classification system uses a "Transportation Overlay" to determine street cross-sections. This plan for Milwaukie's downtown defines street cross-sections outright (see Section 2.5).

Traffic Volumes

Traffic volumes on different street classifications vary depending on the number of traffic lanes. Average daily traffic counts for downtown streets include 44,000 average daily traffic (ADT) on McLoughlin Boulevard, 9,200 ADT on Harrison Street, 2,000 ADT on Monroe Street and 5600 ADT on Washington Street (TSP July 15, 1997).

Regional Classification

ODOT and Metro only classify roads that are of statewide or regional significance, respectively. These are defined in the Regional Transportation Plan (RTP). Regional street design concepts and classifications apply to the regional system as they relate to specific 2040 Growth Concept land use components. These classifications are compatible with Milwaukie classifications, although the specific classification names may differ.

Street Standards

2.1 Street Classifications

Downtown Street Classifications

Freeway - ORE 224 (located just north of the downtown study area)

Freeways connect major activity centers within the region. They are designed to provide high speed motor travel. Freeway designs have few street connections, and always occur at separated grades with access controlled by ramps.

Regional Boulevard - McLoughlin Boulevard (ORE 99E)

Regional Boulevards mix a significant amount of motor vehicle traffic with public transportation, bicycle and pedestrian travel and feature low to moderate vehicle speeds. They have many street connections, pedestrian crossings, sidewalks and limited driveways. The plan indicates four travel lanes, bike lanes, and no on-street parking for McLoughlin Boulevard. Development is not required to orient entries toward the street. The center median serves as a pedestrian refuge and allows for left-turn movements at select intersections.

Arterial - Harrison Street, 17th Avenue, 21st Avenue, Lake Road

These streets serve as regional roadways for local and through traffic, for destinations inside and outside the city of Milwaukie. They are similar to the Regional Boulevard in that they also mix through traffic with public transportation, bicycle and pedestrian travel. Public transit serving other points in the region may use arterial streets.

Collector - Main, Jackson, Monroe, Jefferson, and Washington Streets

Collector streets carry local traffic from local streets to arterial streets, serving as circulation magnets for local streets. These streets are designed to balance vehicle traffic with public transportation, bicycle and pedestrian travel. Collector streets allow for moderate vehicle speeds and have on-street parking where the right-of-way allows. They serve Main Street with buildings oriented toward the street at main intersections. Local public transit may use collector streets.

Local - 21st Avenue Extension and New Street north of Harrison

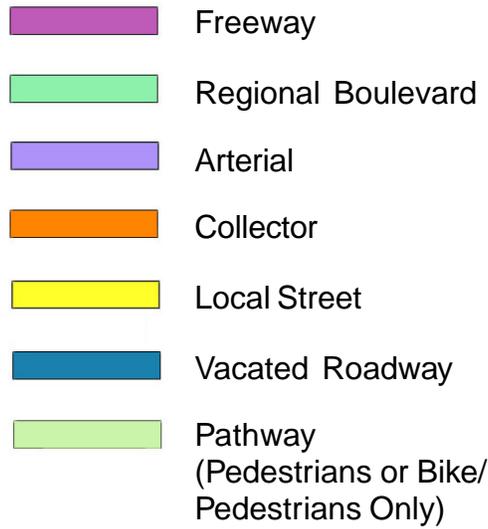
Local streets typically emphasize land access in residential areas, connecting to other local streets or to collector streets.

Pathway - Main Street Walk and Rail Trail

These pedestrian corridors restrict auto and transit access. Bicycle access may be restricted. Pathways may be urban such as Main Street Walk south of Washington Street, or landscaped such as the Rail Trail along the Union Pacific right-of-way.

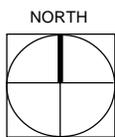
Street Standards

2.2 Street Classification Diagram



Note:

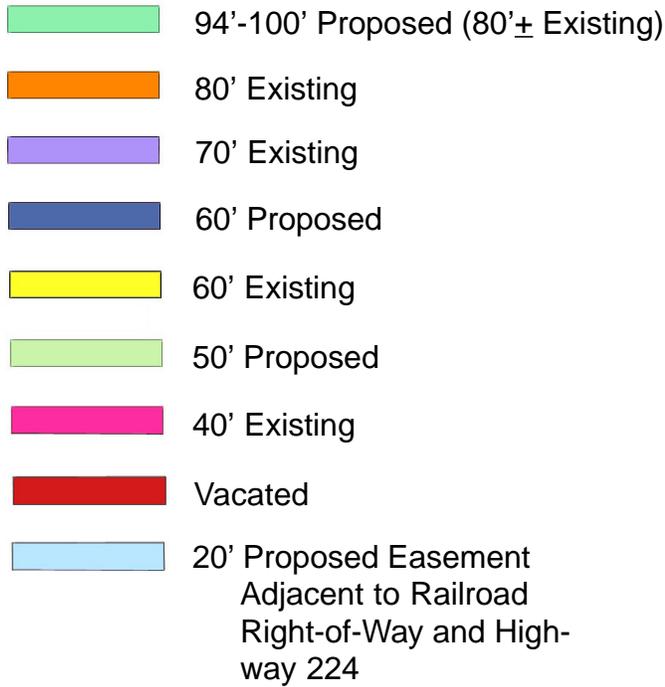
1. All or a portion of the right-of-way or easement for pathways and streets to be acquired, purchased or dedicated at the time of development.
2. Rail Trail north of Monroe Street is outside of the Downtown Plan Study Area. It is included for clarity of loop system.



Street Standards

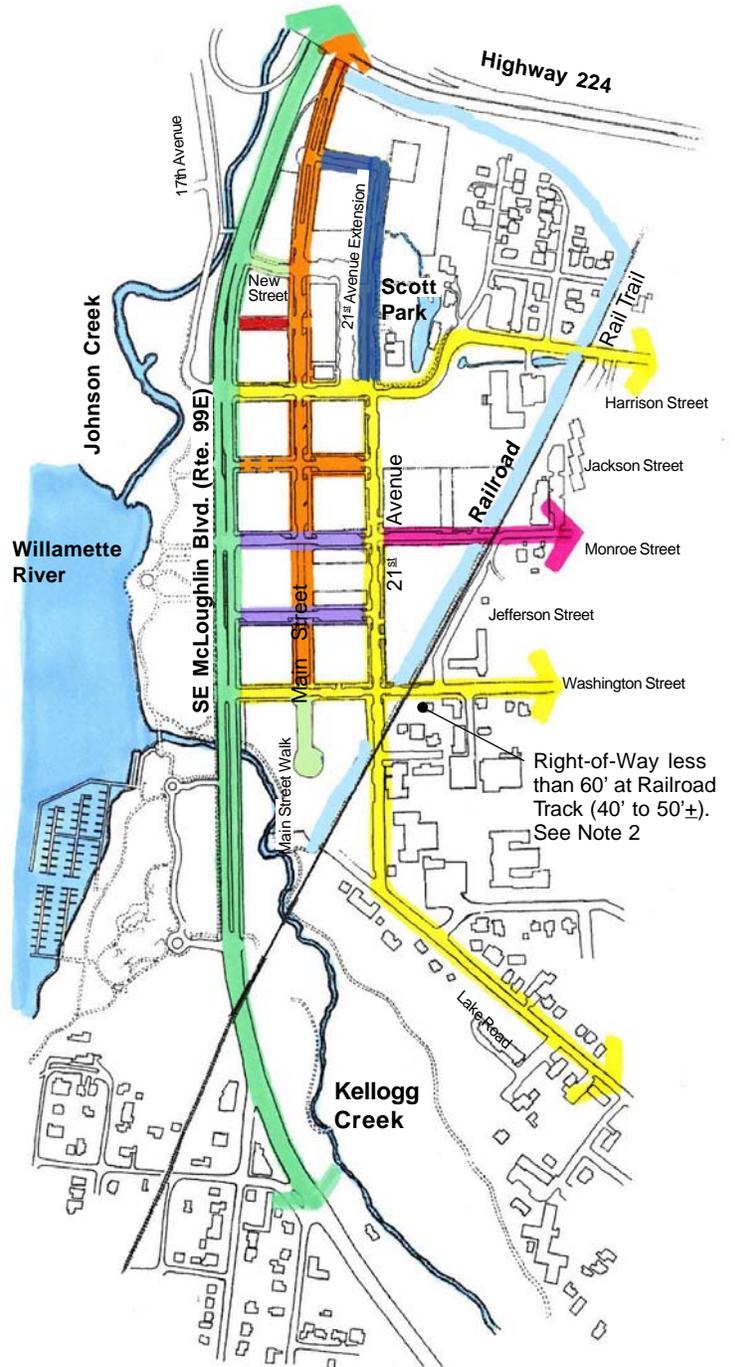
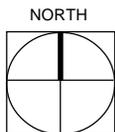
2.3 Street Right-of-Way Widths

Proposed and Vacated R.O.W.'s



Note:

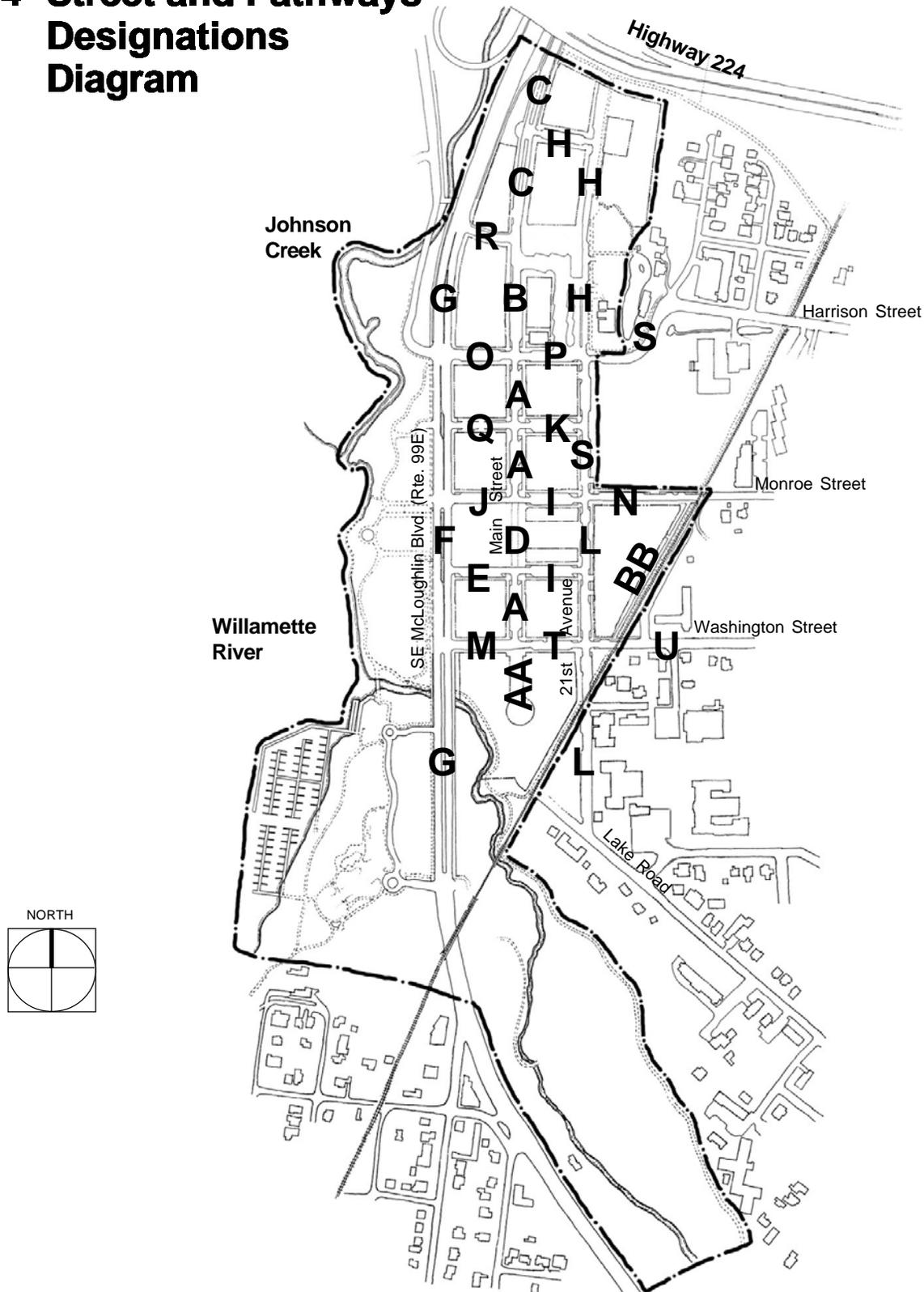
1. Right-of-Way narrowed at Main Street Walk to provide pedestrian scale at pathway and maximize adjacent development sites.
2. All or a portion of the right-of-way or easement for pathways and streets to be acquired, purchased or dedicated at the time of development.
3. Rail Trail north of Monroe Street is outside of the Downtown Plan Study Area. It is included for clarity of loop system.



Right-of-Way less than 60' at Railroad Track (40' to 50'±). See Note 2

Street Standards

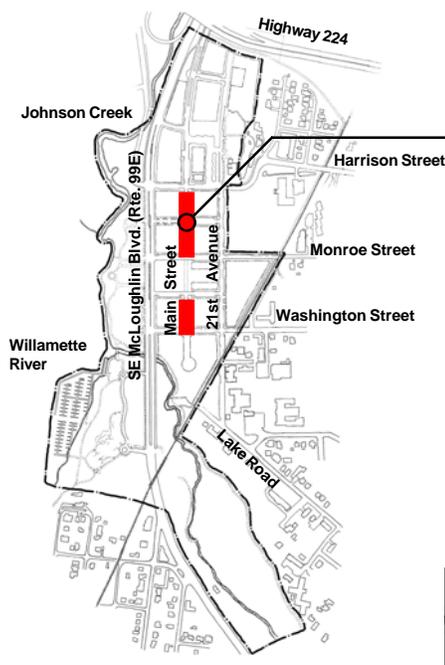
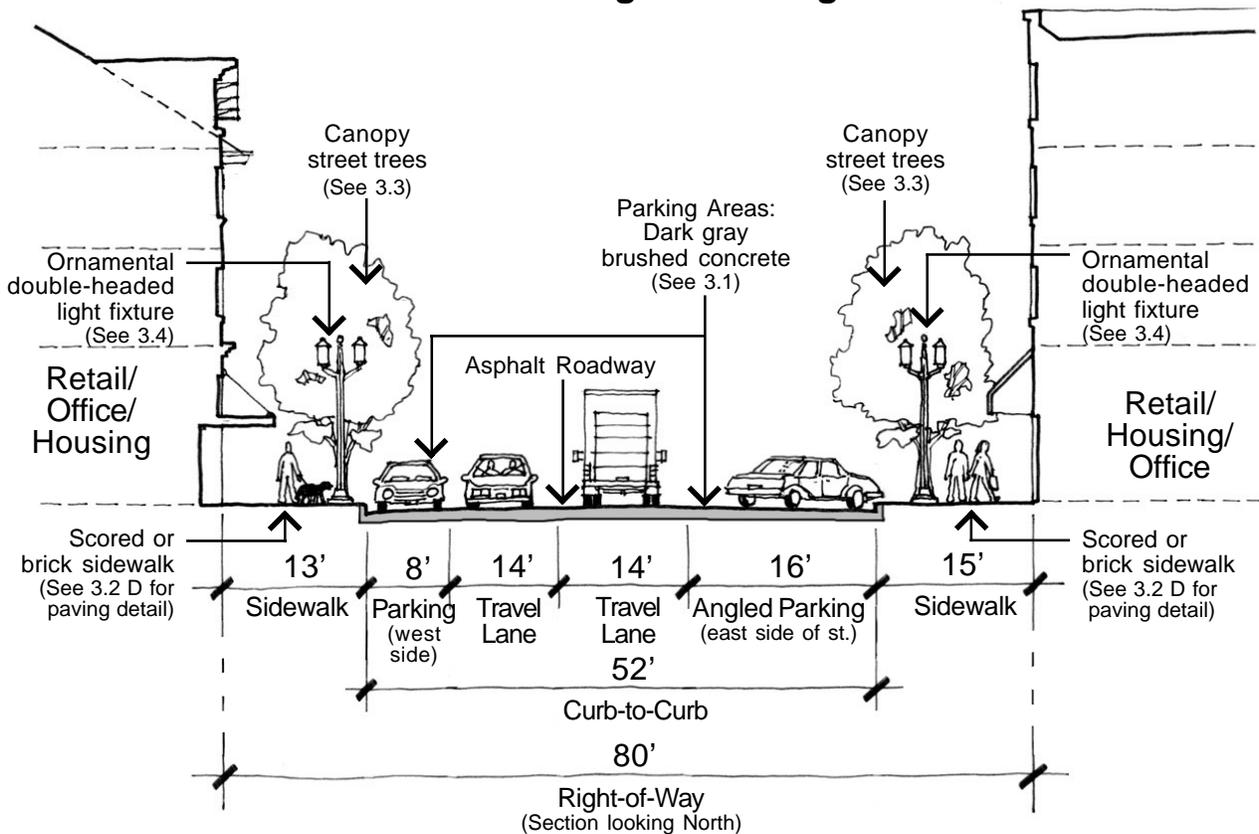
2.4 Street and Pathways Designations Diagram



Street Standards

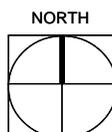
2.5 Street Sections*

Section A: Main Street Parallel & Angled Parking



Type A - Main Street

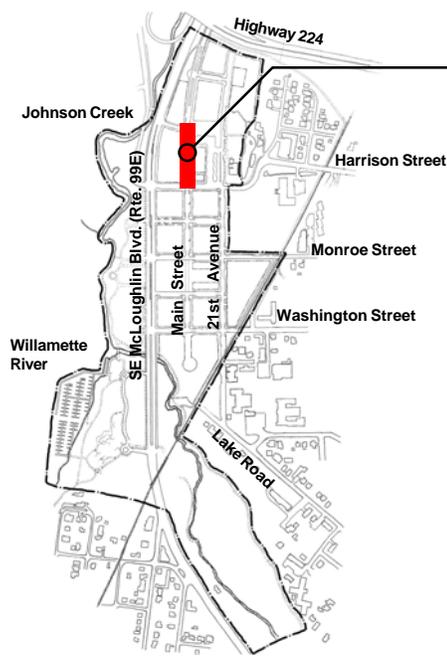
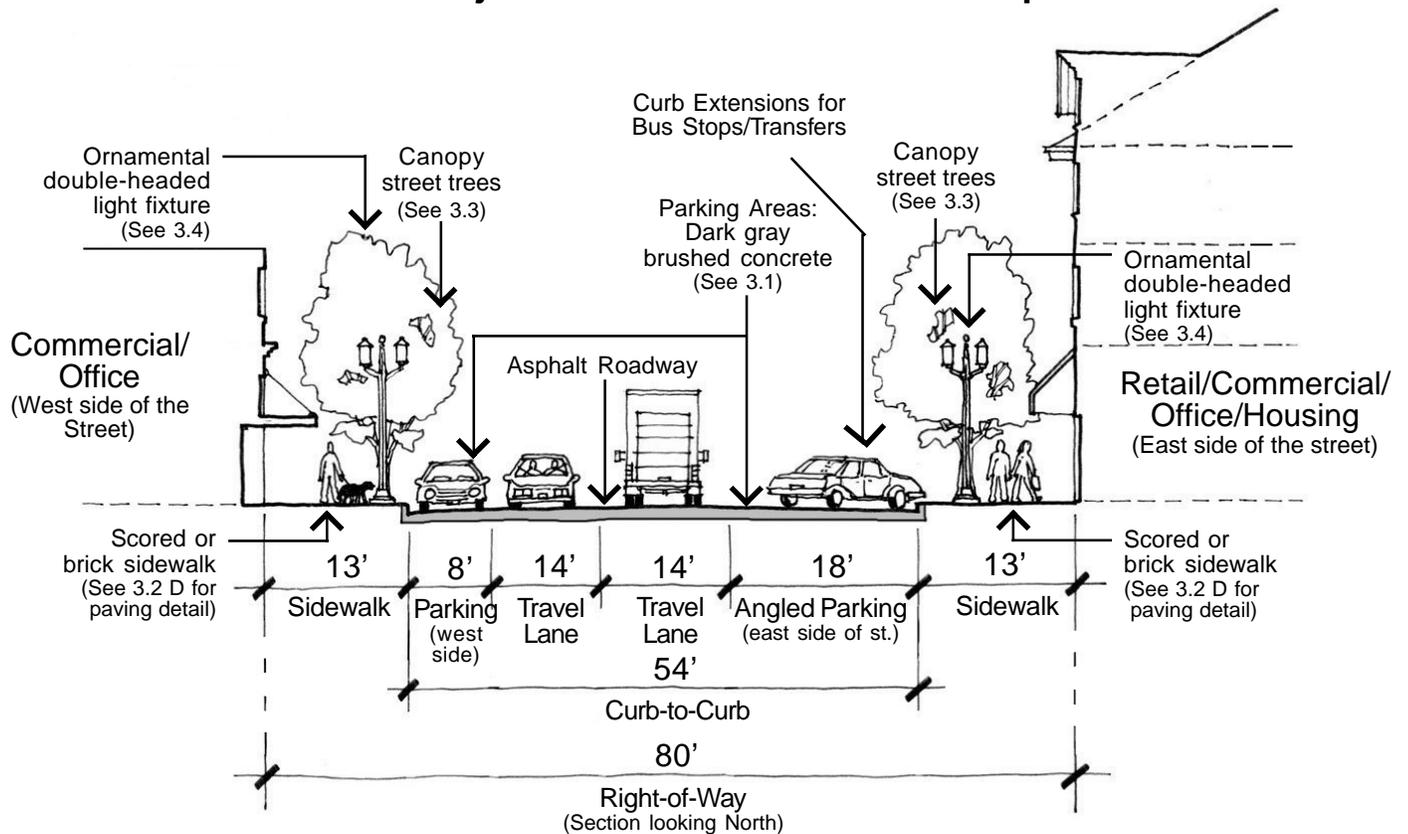
- Washington to Harrison Street (Excluding block with Type D)
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.



Street Standards

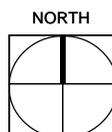
2.5 Street Sections*

Section B: Main Street Adjacent to North Main Redevelopment Site



Type B - Main Street

- Harrison to North Main Redevelopment Site.
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.

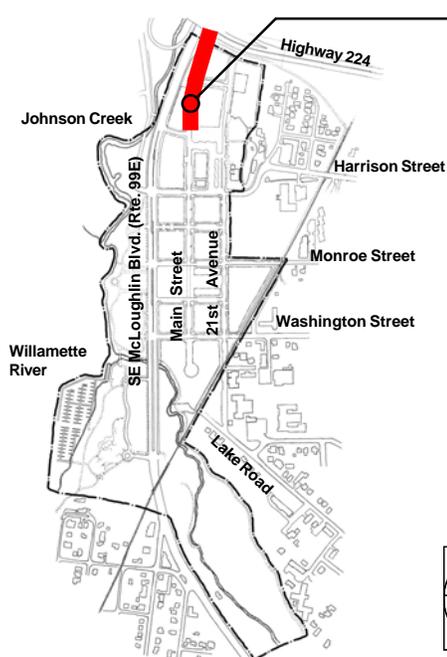
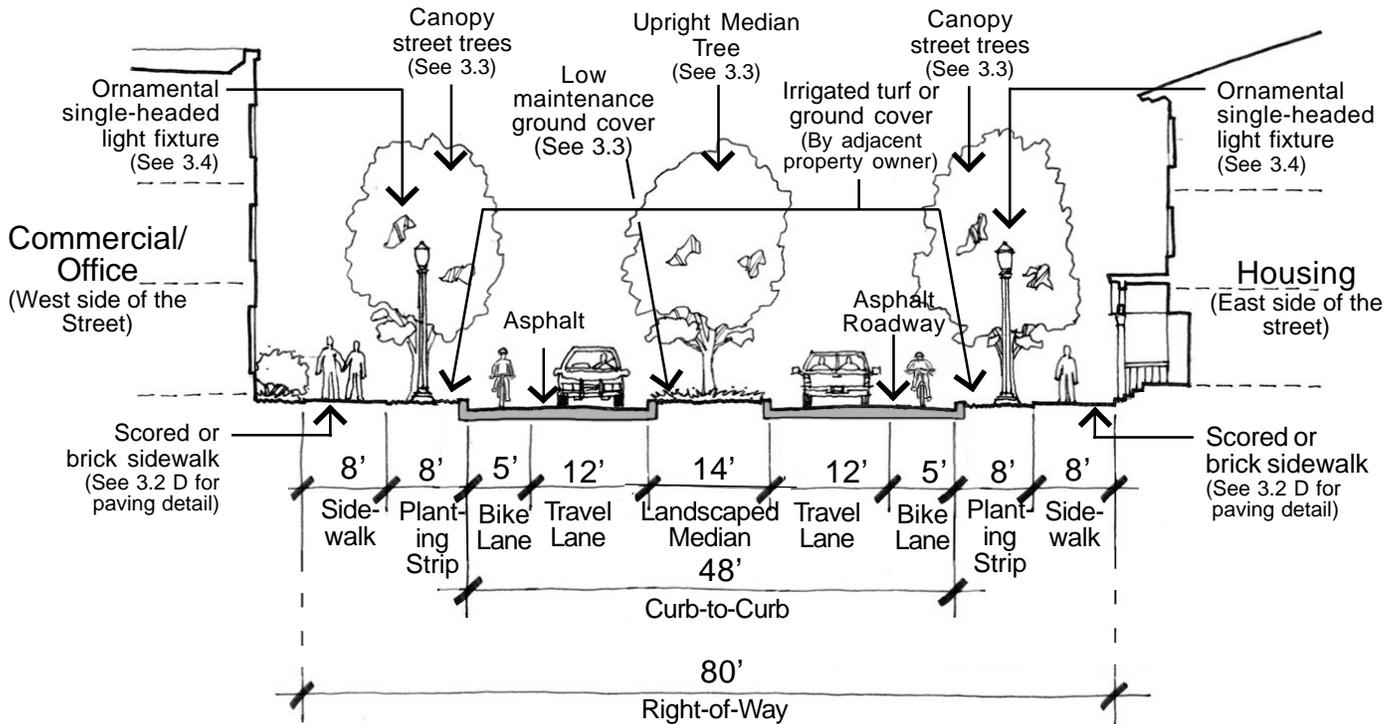


* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable. Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs.

Street Standards

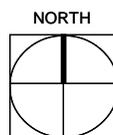
2.5 Street Sections*

Section C: Main Street North of North Main Redevelopment Site



Type C - Main Street

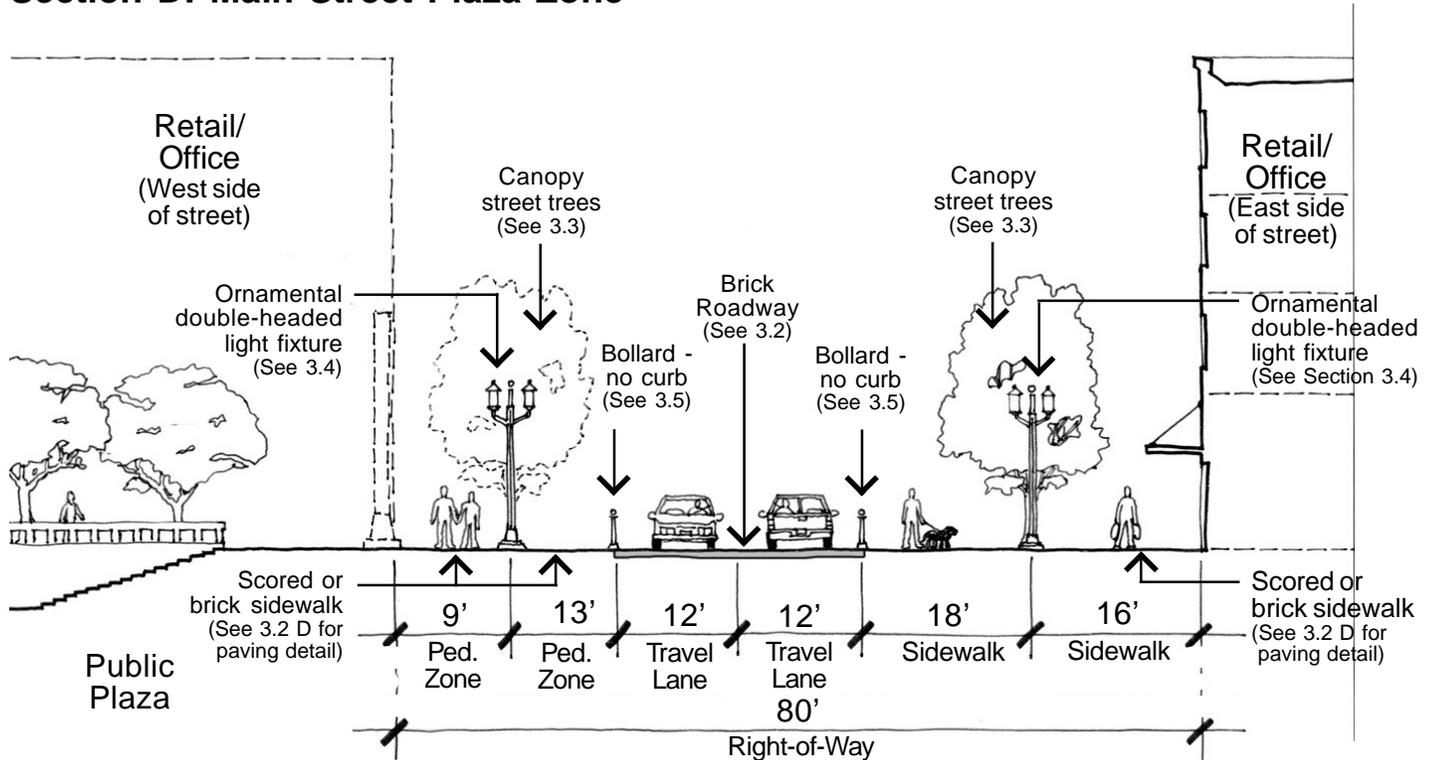
- North Main Redevelopment Site to Highway 224 overpass
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.



Street Standards

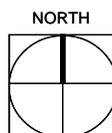
2.5 Street Sections*

Section D: Main Street Plaza Zone



Type D - Main Street

- From Jefferson to Monroe Street
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.

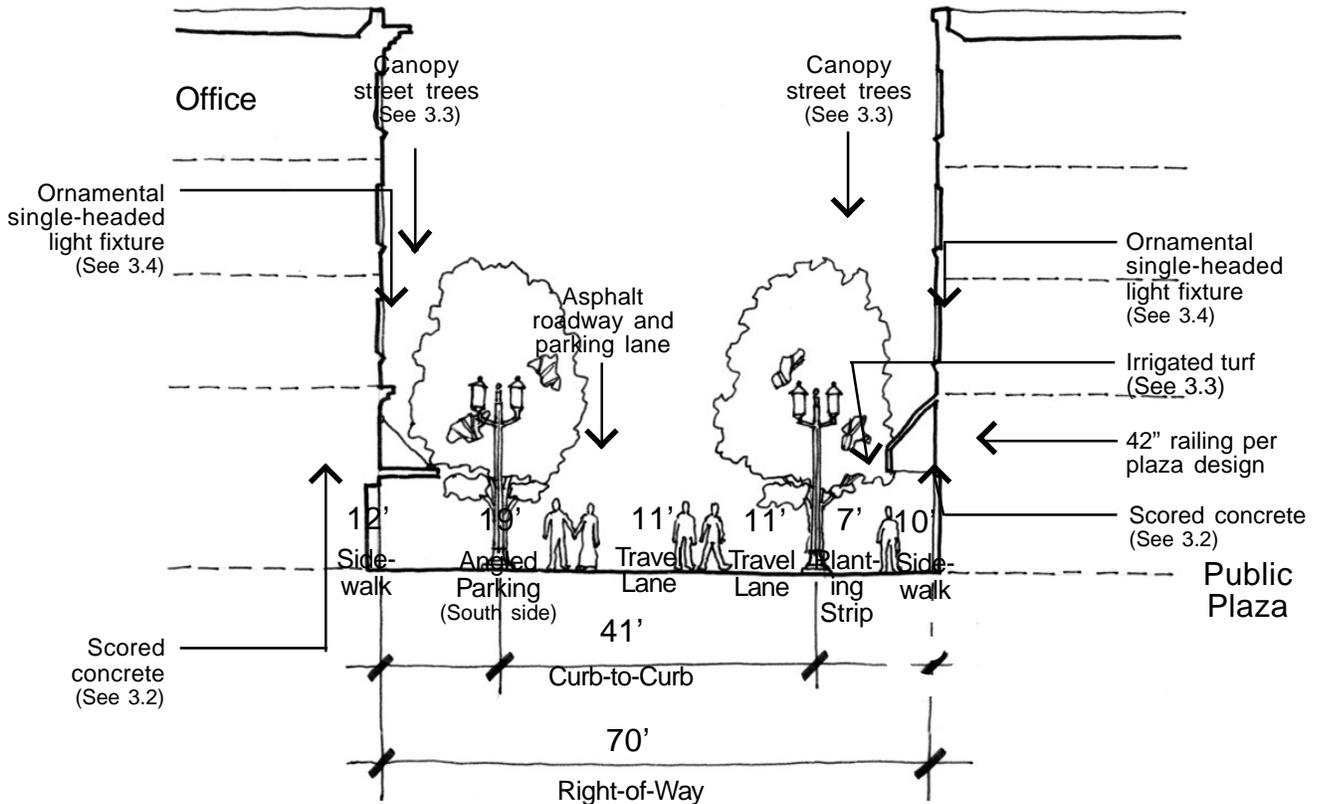


* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable. Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs.

Street Standards

2.5 Street Sections*

Section E: Jefferson Street



Type E - Jefferson Street

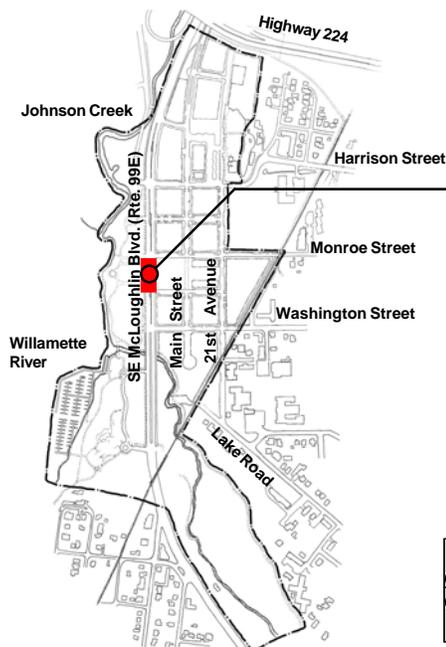
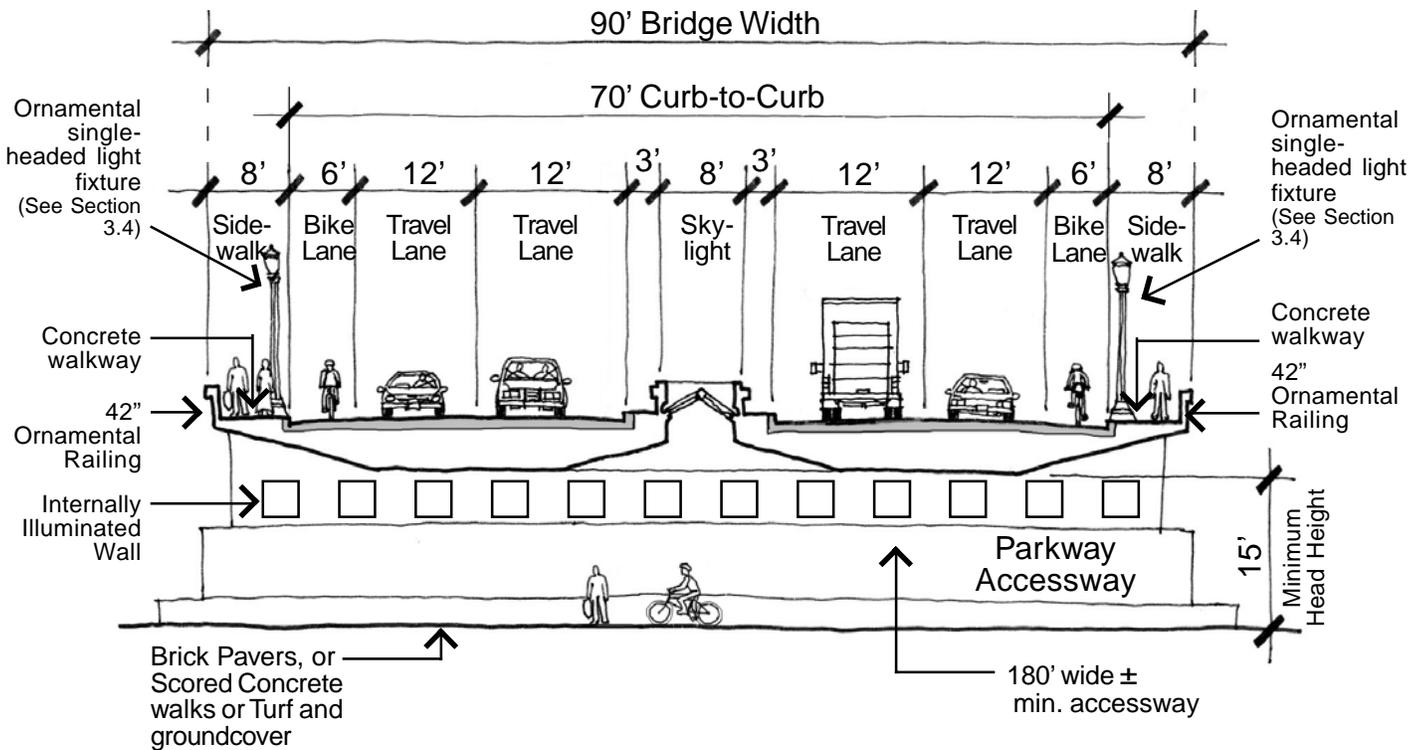
- McLoughlin Boulevard to Main Street
- No parallel parking on north side
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.



Street Standards

2.5 Street Sections*

Section F: McLoughlin Boulevard Bridge over Parkway



Type F - McLoughlin Boulevard

- Final design of bridge to be determined by others



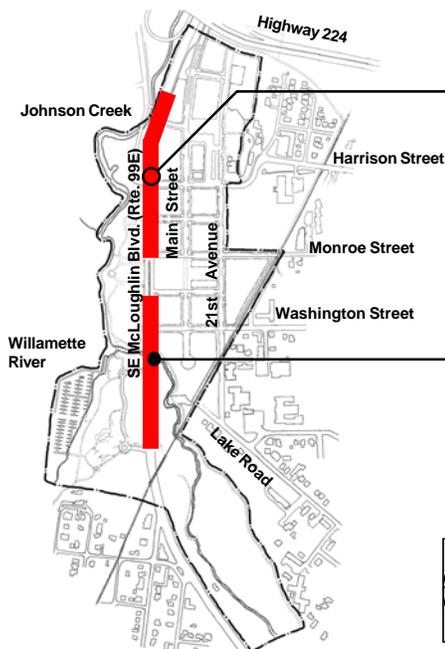
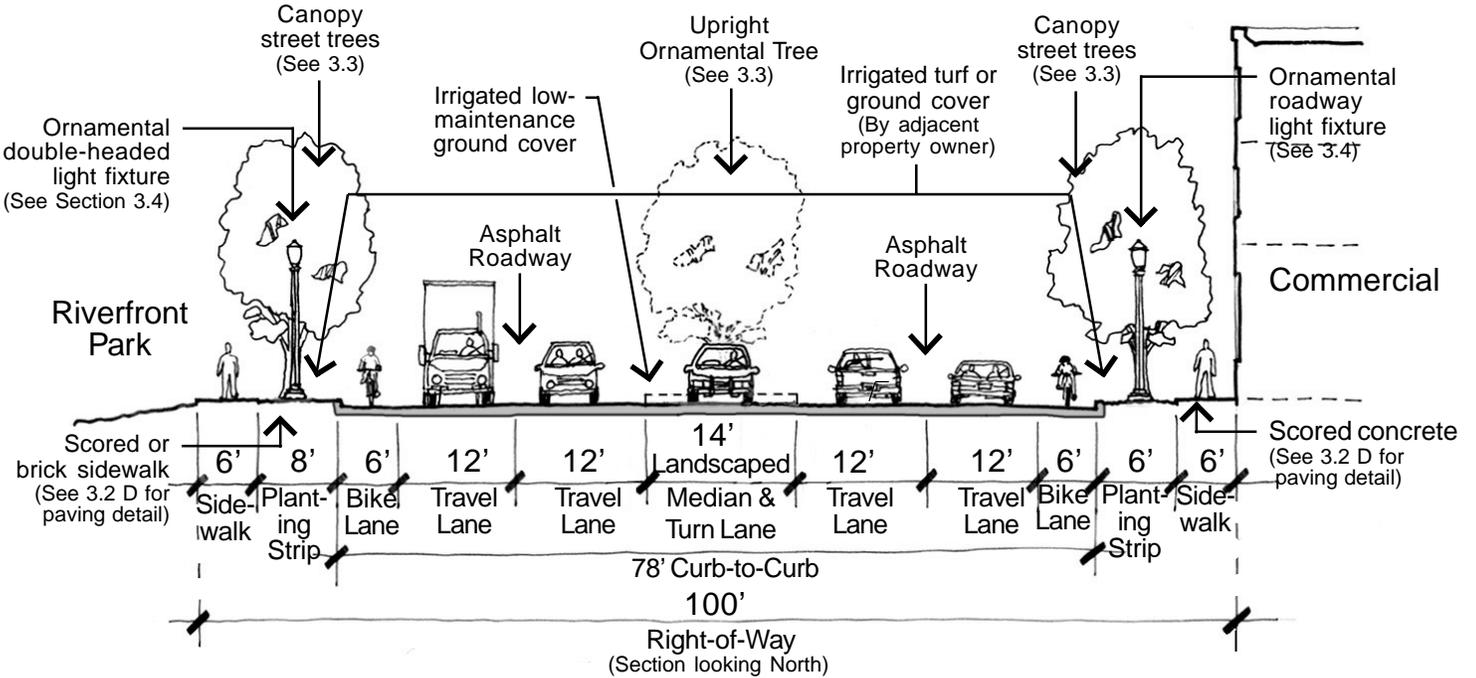
* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable.

Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs.

Street Standards

2.5 Street Sections*

Section G: McLoughlin Boulevard with Median



Type G - McLoughlin Boulevard

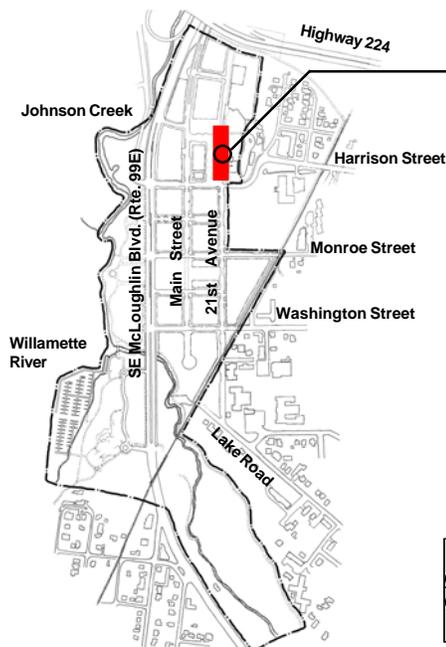
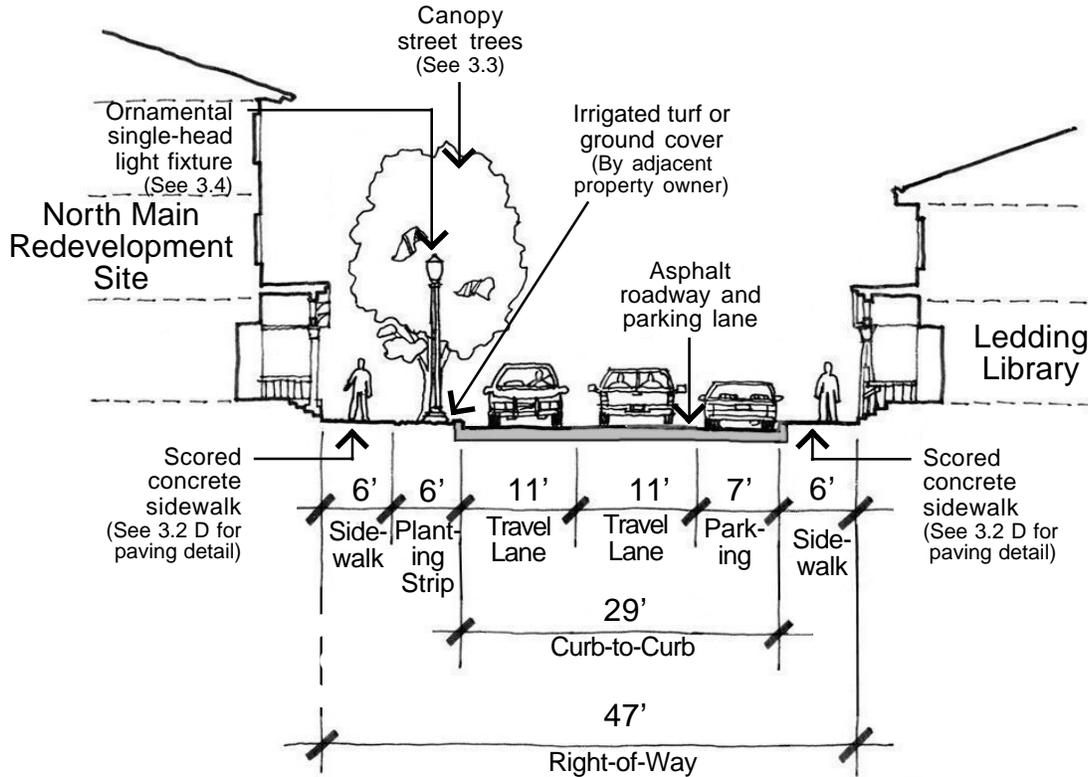
- New Street to Monroe Street; Jefferson Street to Railroad Trestle
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.

Bridge treatment of McLoughlin Boulevard over Kellogg Creek to be determined

Street Standards

2.5 Street Sections*

Section H(1): 21st Avenue Extension—South Section



Type H(1) - 21st Avenue Extension—South Section

- Extends 21st Avenue, adjacent to North Main Redevelopment Site, to south side of Scott Park.
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.

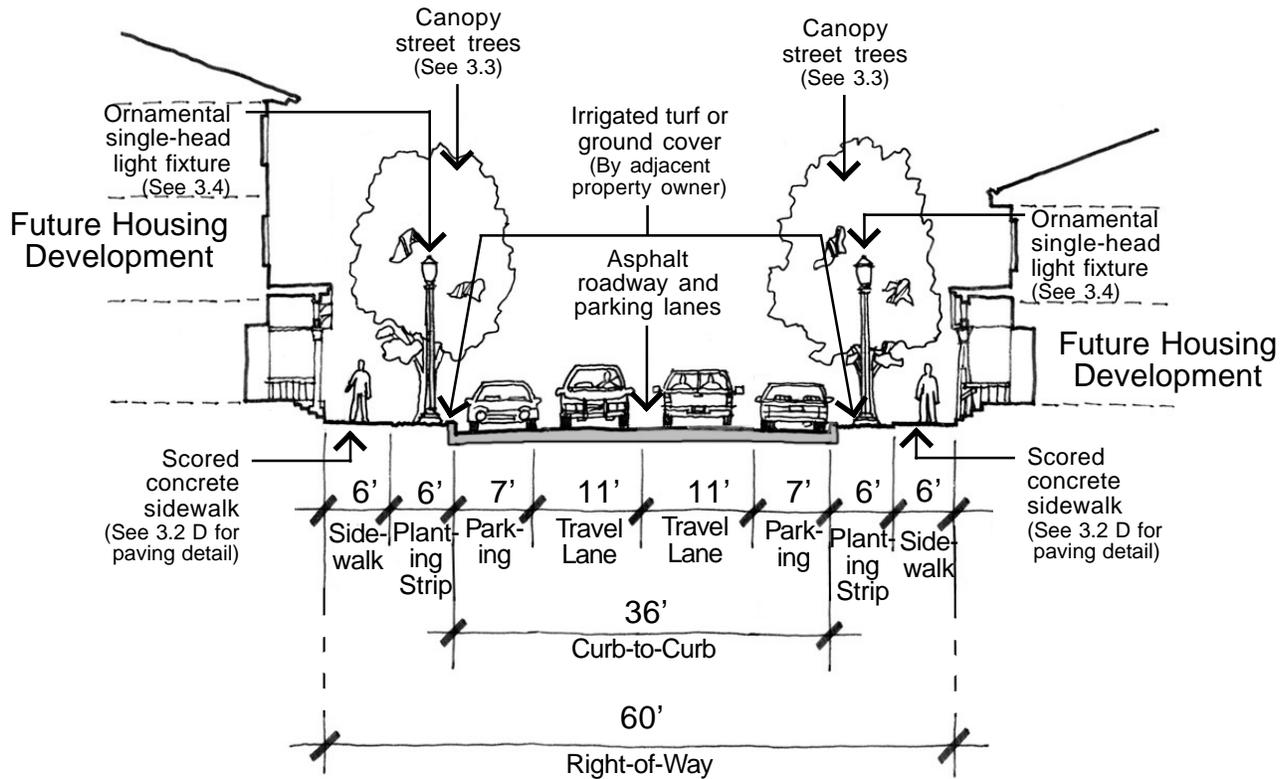


* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable. Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs.

Street Standards

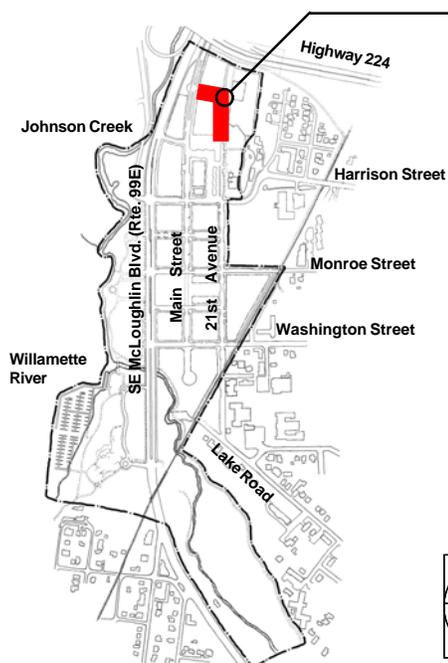
2.5 Street Sections*

Section H(2): 21st Avenue Extension—North Section



Type H(2) - 21st Avenue Extension—North Section

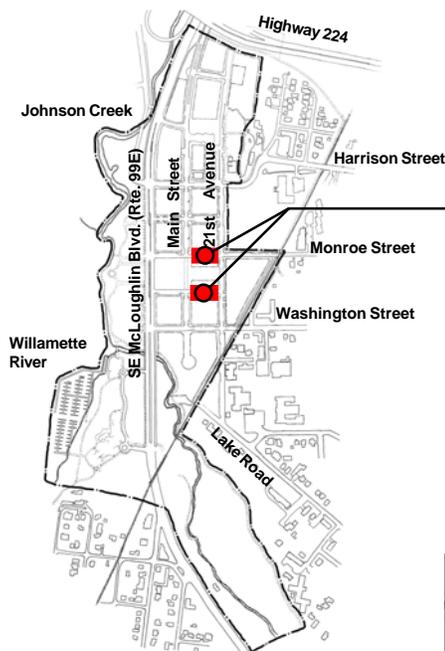
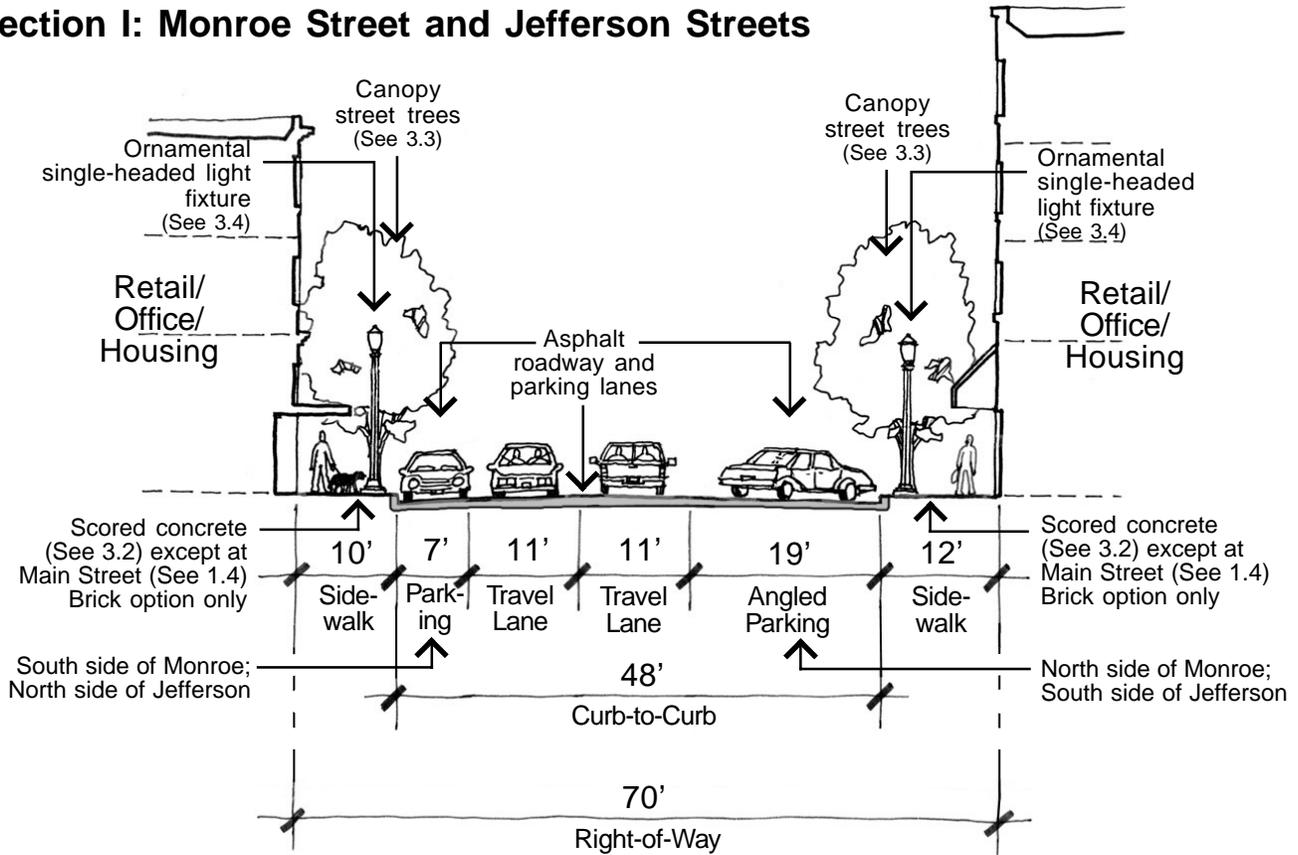
- Further extends 21st Avenue, from Scott Park to Main Street.
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.



Street Standards

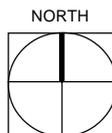
2.5 Street Sections*

Section I: Monroe Street and Jefferson Streets



Type I - Monroe and Jefferson Streets

- Main Street to 21st Avenue
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.



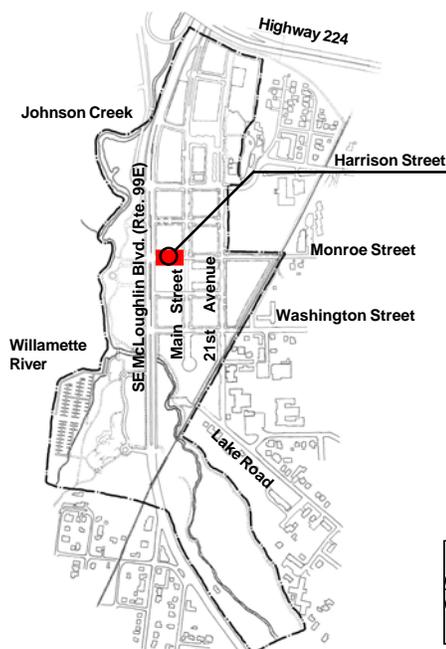
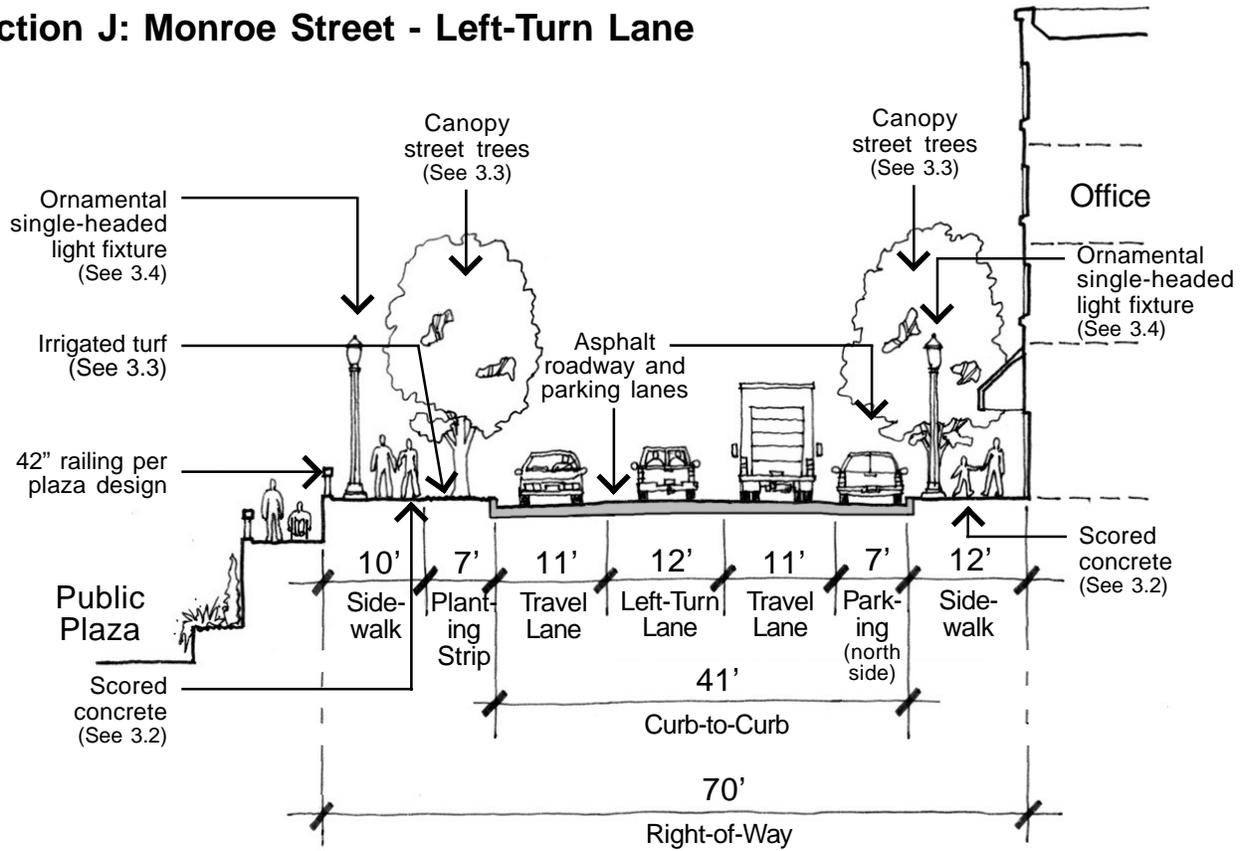
* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable.

Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs.

Street Standards

2.5 Street Sections*

Section J: Monroe Street - Left-Turn Lane



Type J - Monroe Street

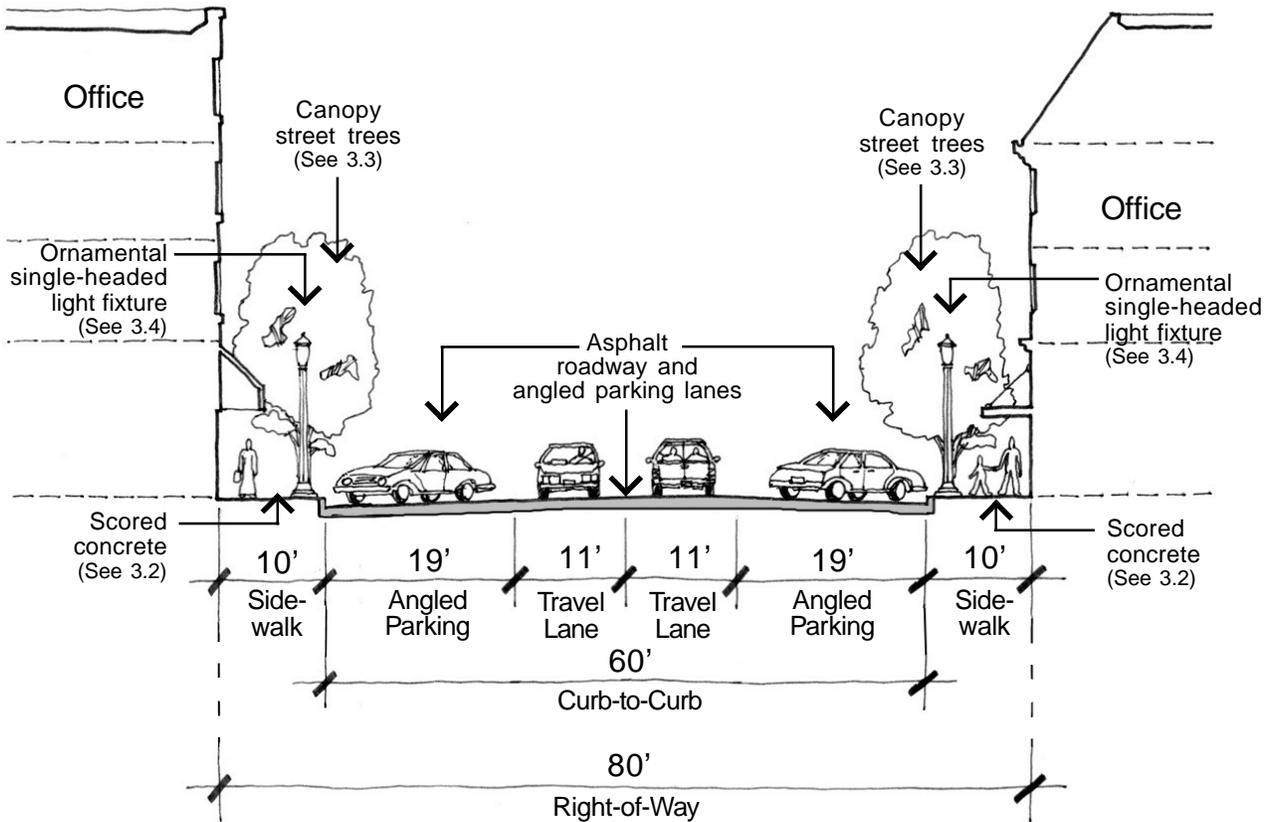
- McLoughlin Blvd. to Main Street
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.



Street Standards

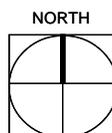
2.5 Street Sections*

Section K: Jackson Street - East of Main Street



Type K - Jackson Street

- 21st Avenue and Main Street
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.

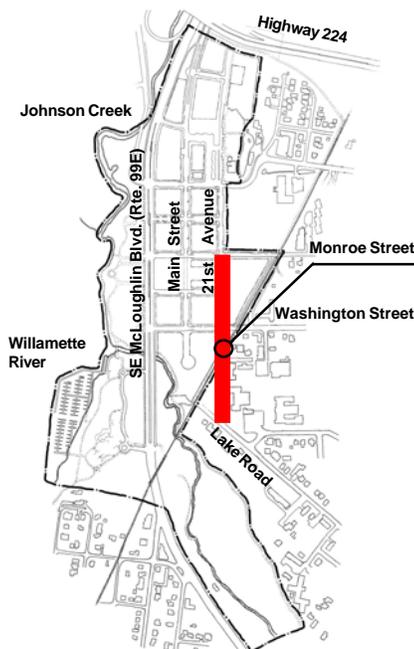
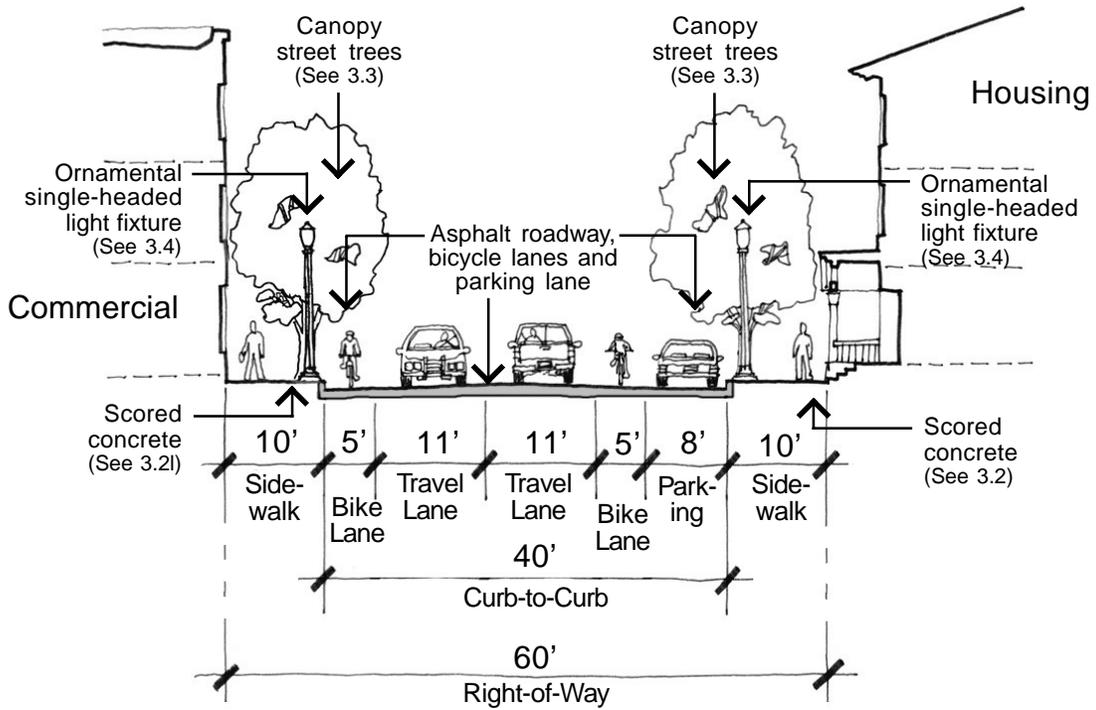


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Street Standards

2.5 Street Sections*

Section L: 21st Avenue



Type L - 21st Avenue

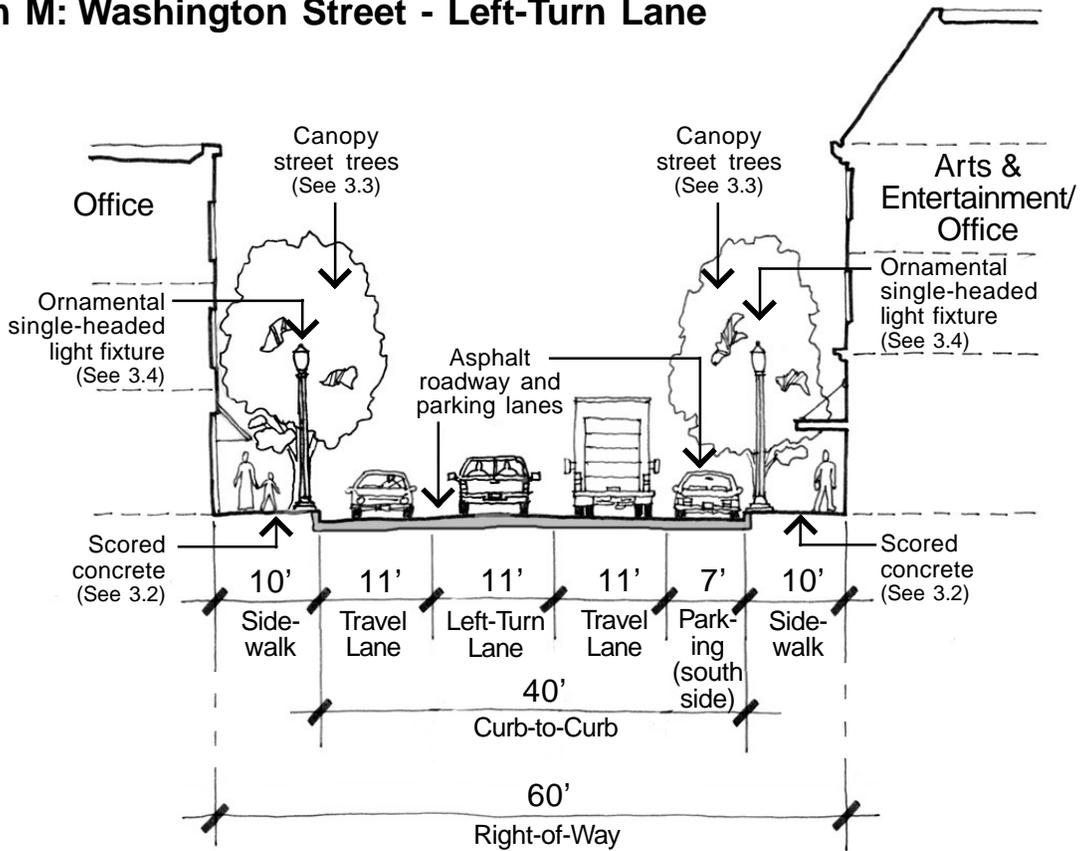
- 21st Ave. from Monroe Street to Lake Road;
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.



Street Standards

2.5 Street Sections*

Section M: Washington Street - Left-Turn Lane



Type M- Washington Street

- Main Street to McLoughlin Boulevard
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.

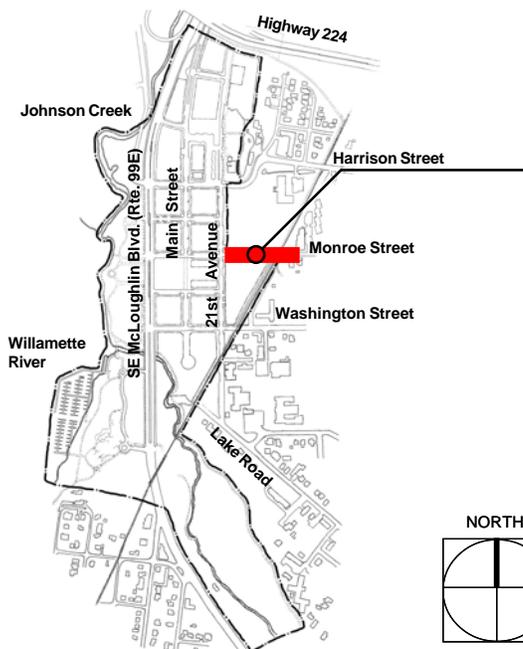
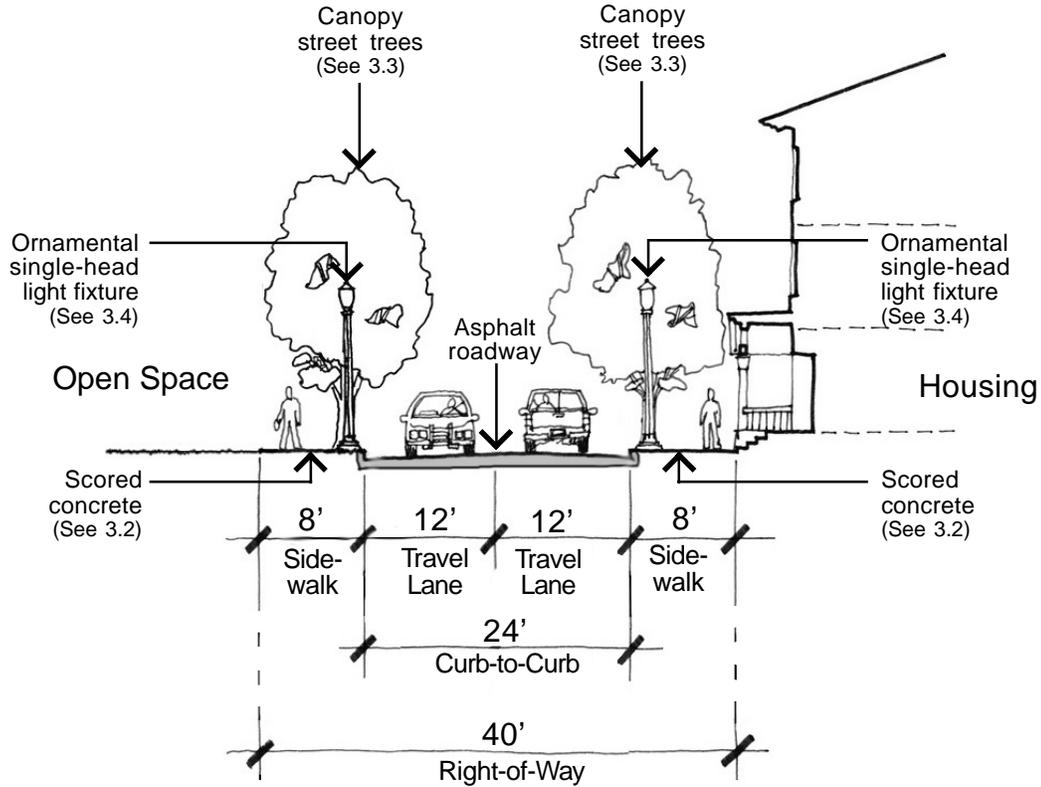


* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable. Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs.

Street Standards

2.5 Street Sections*

Section N: Monroe Street - East of 21st Avenue



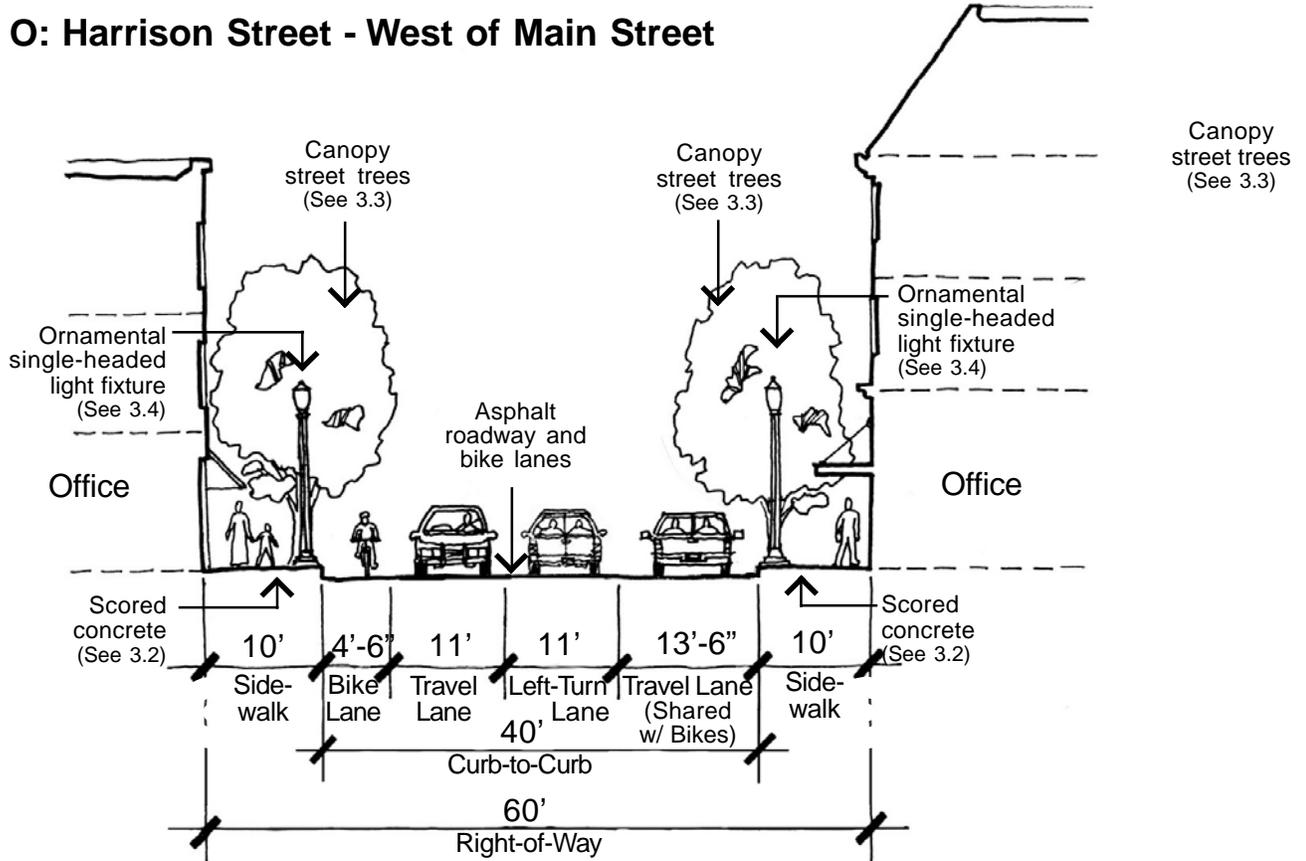
Type N - Monroe Street

- East of 21st Avenue
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.

Street Standards

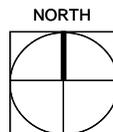
2.5 Street Sections*

Section O: Harrison Street - West of Main Street



Type O - Harrison Street

- McLoughlin Boulevard to Main Street
- Underground all utilities
- Section condition at west end of block only
- For Street Furniture, see Section 3.5
- For Bicycle Facilities, see Section 3.6

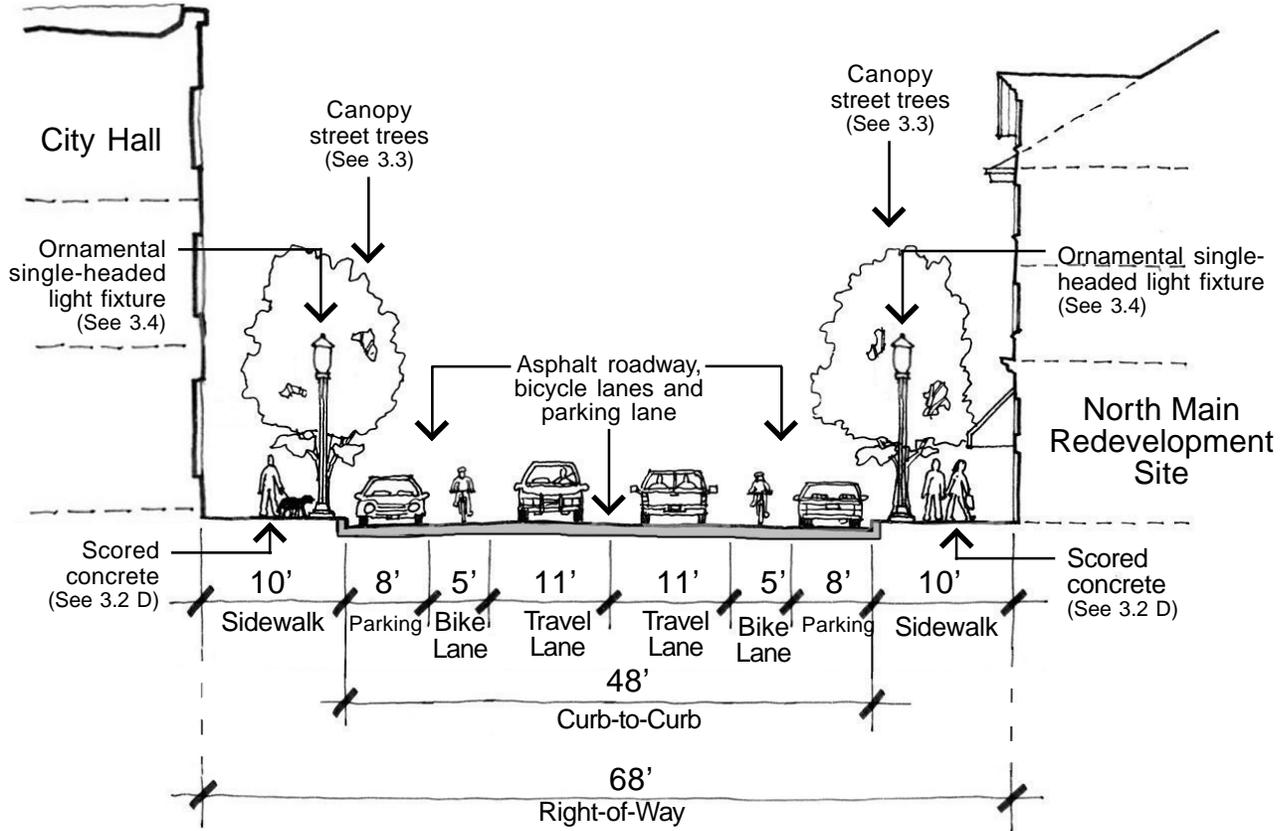


* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable. Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs.

Street Standards

2.5 Street Sections*

Section P: Harrison Street - East of Main Street



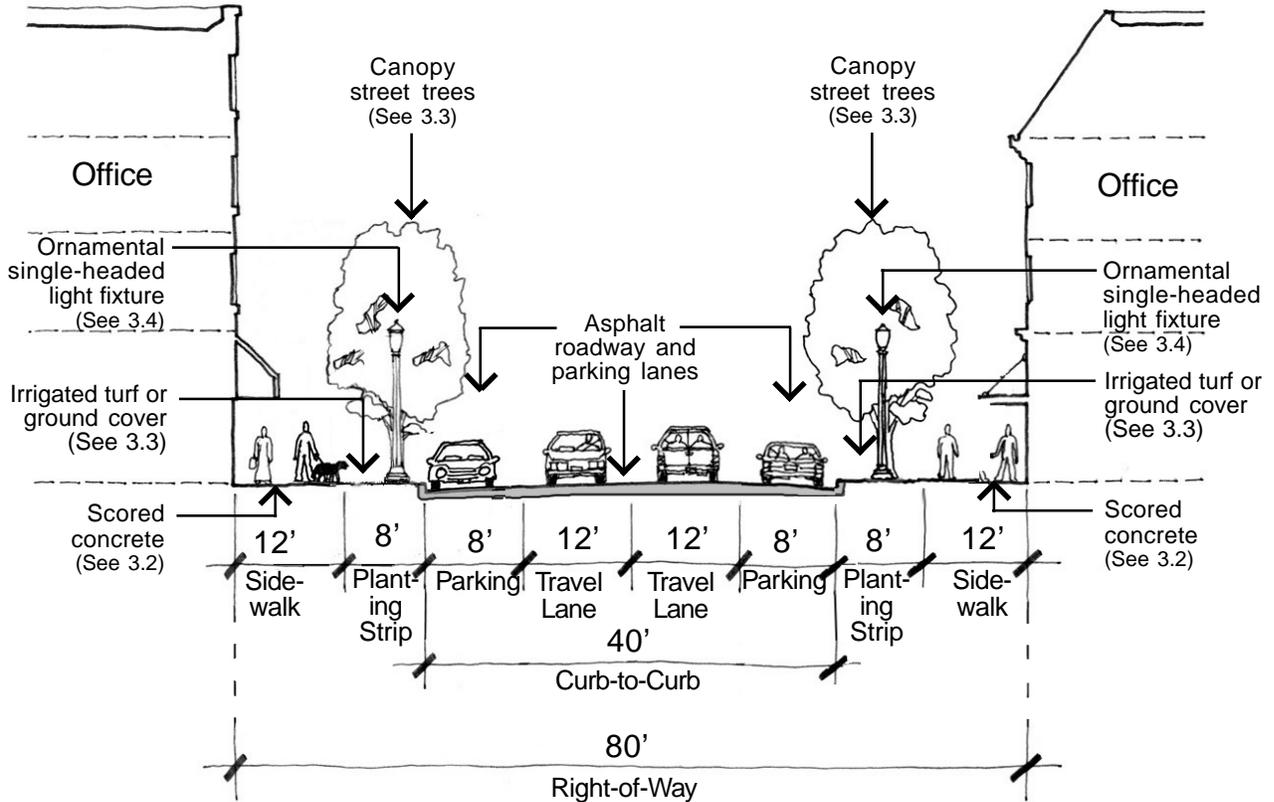
Type P - Harrison Street

- From Main Street to 21st Avenue
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.
- Additional right-of-way to be acquired to accommodate north-side parallel parking.

Street Standards

2.5 Street Sections*

Section Q: Jackson Street - West of Main Street



Type Q - Jackson Street

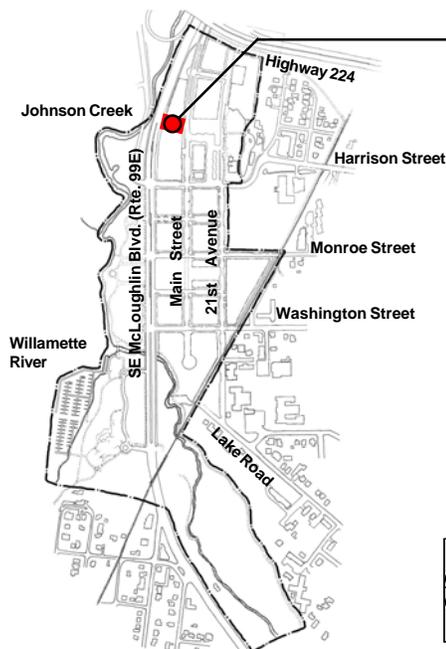
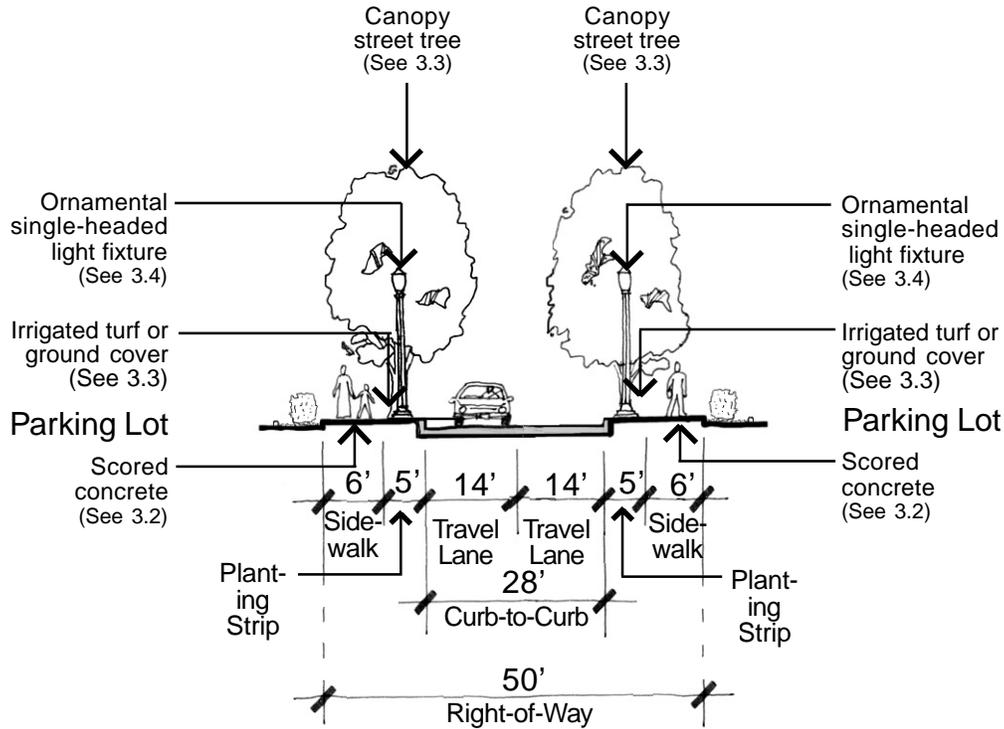
- From Main Street to McLoughlin Blvd.
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.

* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable. Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs.

Street Standards

2.5 Street Sections*

Section R: New Street



Type R - New Street

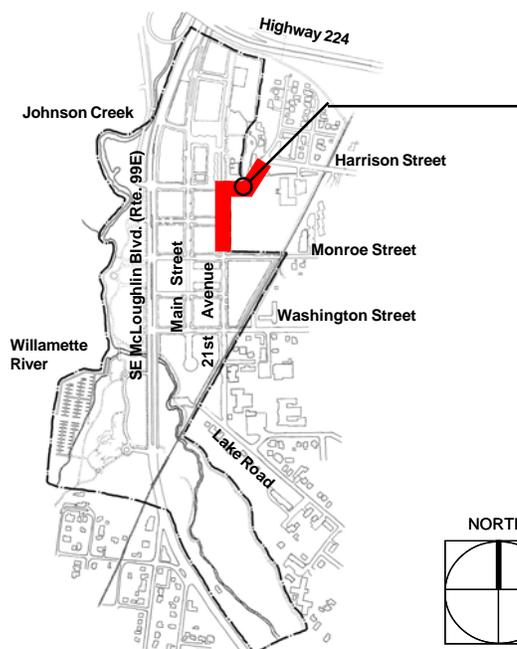
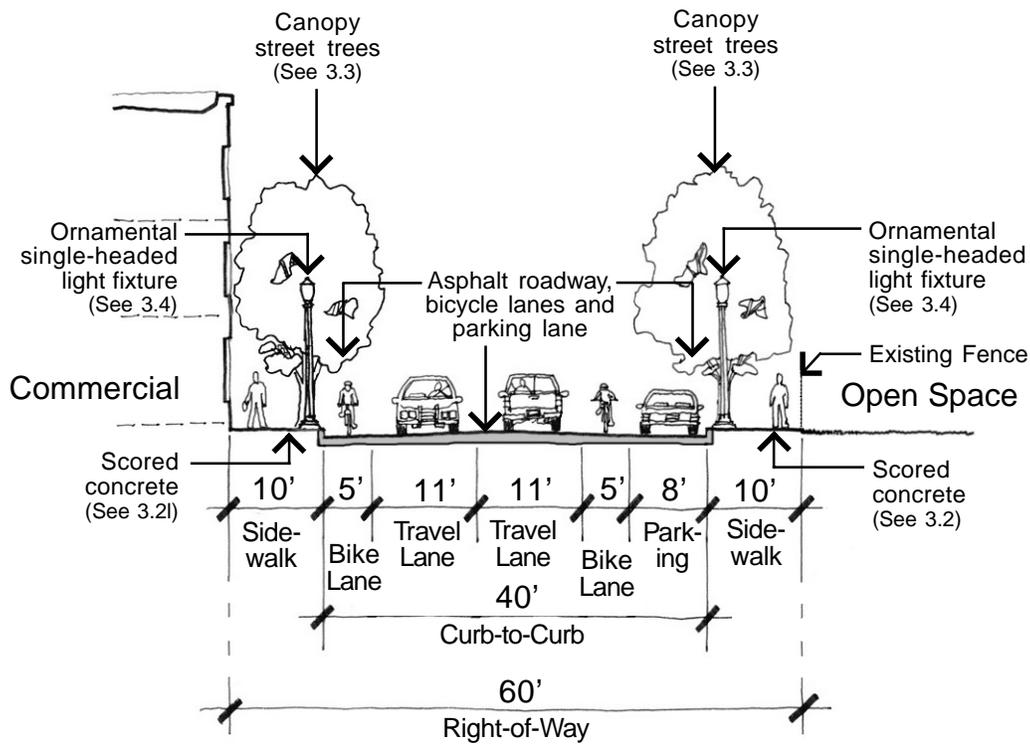
- Connects McLoughlin Boulevard to Main Street just north of the N. Main Redevelopment Site
- No parking and 14' travel lanes
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.



Street Standards

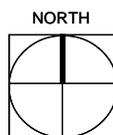
2.5 Street Sections*

Section S: 21st Avenue & Harrison Street



Type S - 21st Avenue, Harrison Street

- 21st Avenue from Monroe Street to Harrison Street; Harrison Street East of 21st Avenue
- Development on one side only
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.

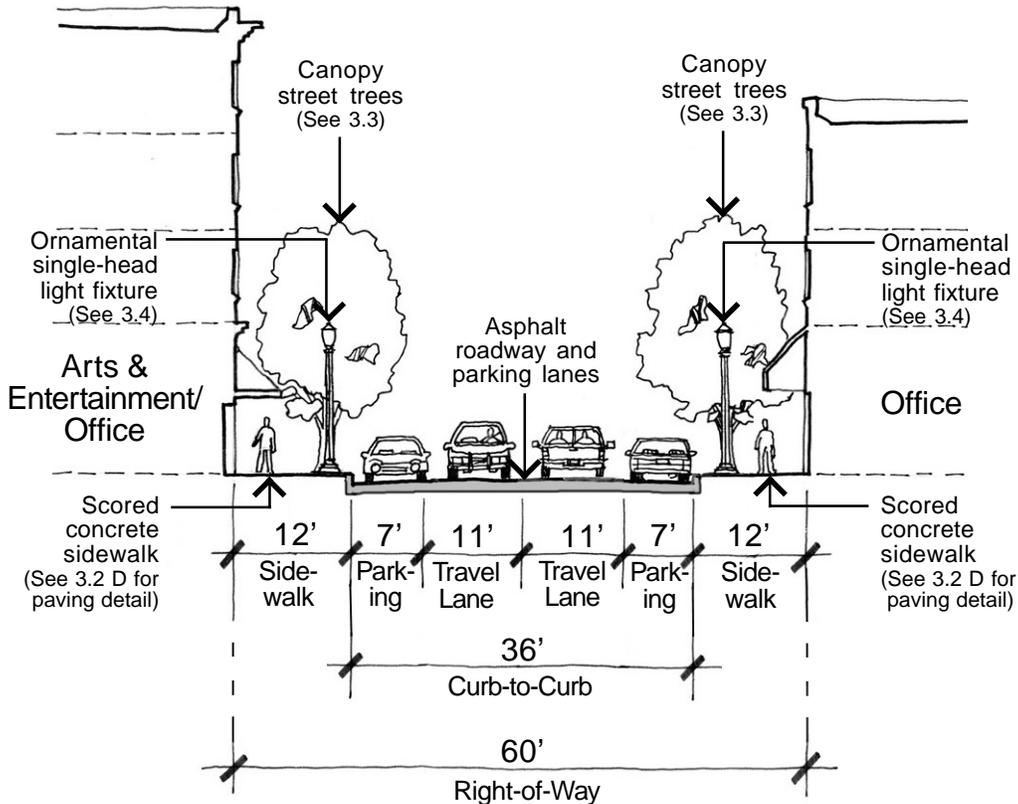


* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable. Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs.

Street Standards

2.5 Street Sections*

Section T: Washington Street - Between Main Street and 21st Avenue



Type T - Washington Street

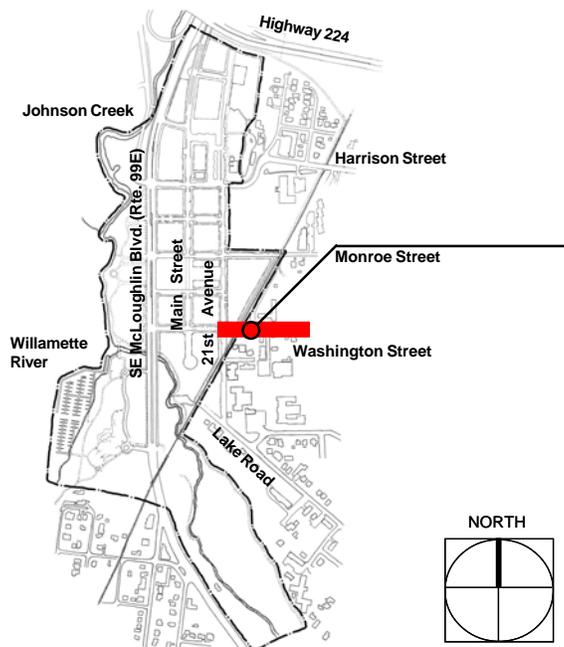
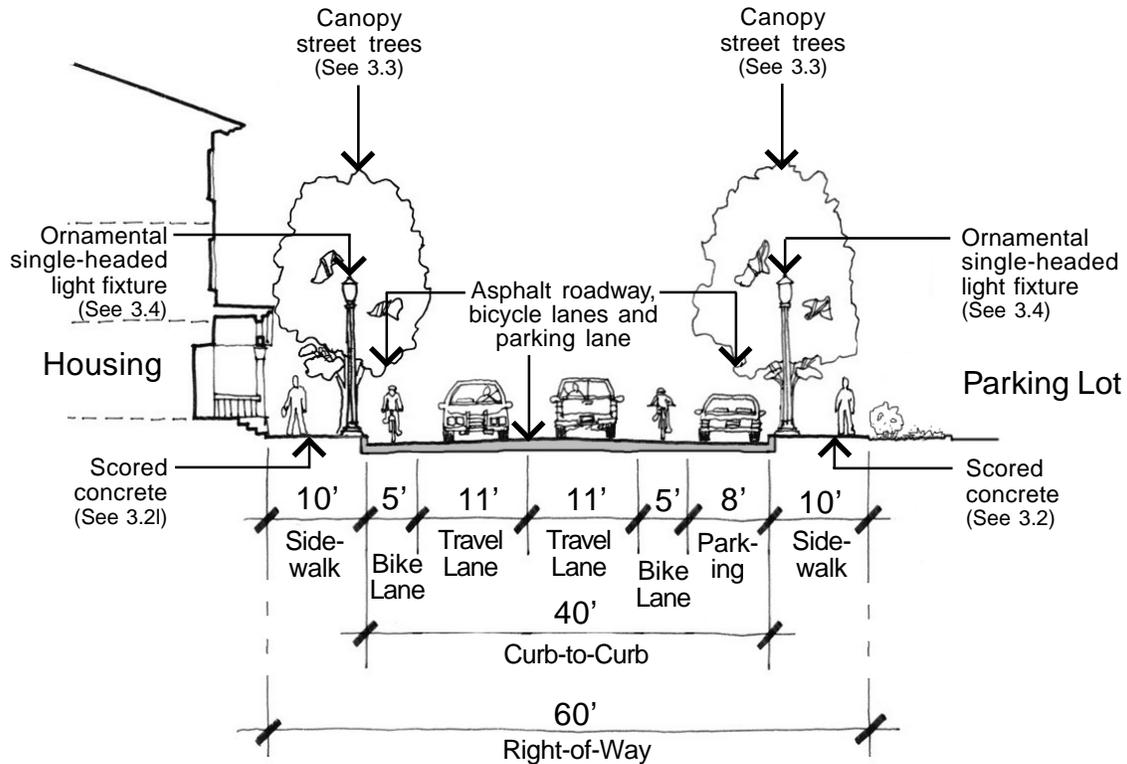
- Main Street to 21st Avenue
- No landscape strip
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.



Street Standards

2.5 Street Sections*

Section U: Washington Street - East of 21st Avenue



Type U - Washington Street

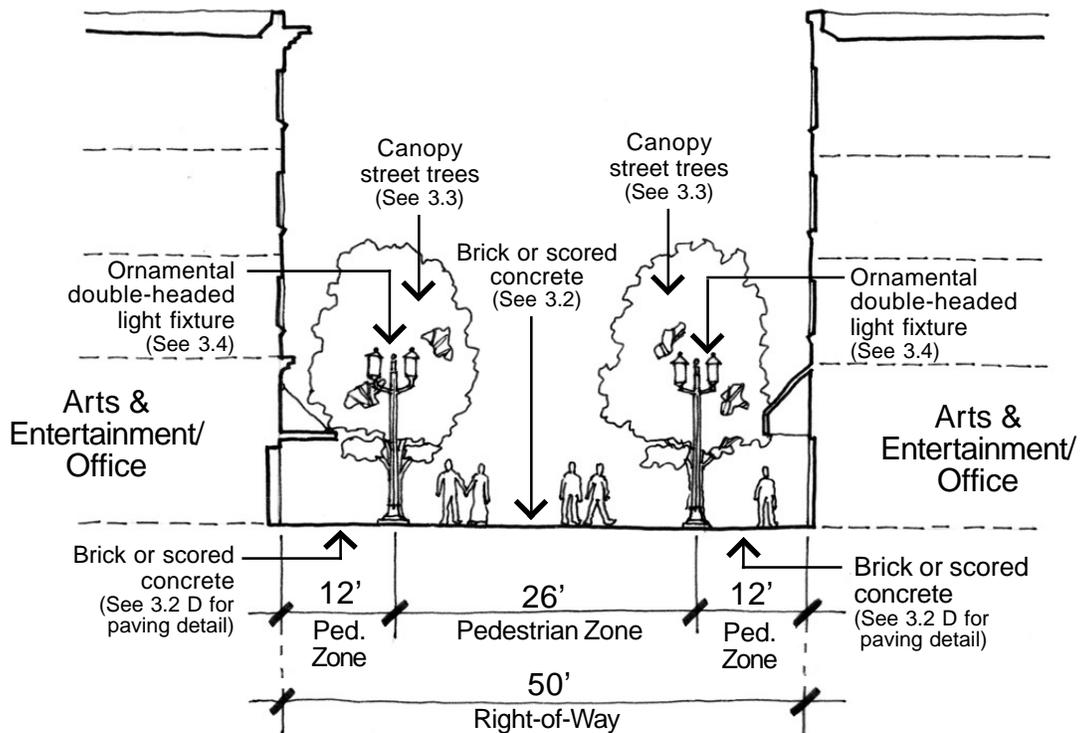
- East of 21st Avenue
- Setbacks required on both sides
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.

* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable. Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs.

Street Standards

2.6 Pathway Sections*

Section AA: Main Street Walk



Type AA - Main Street

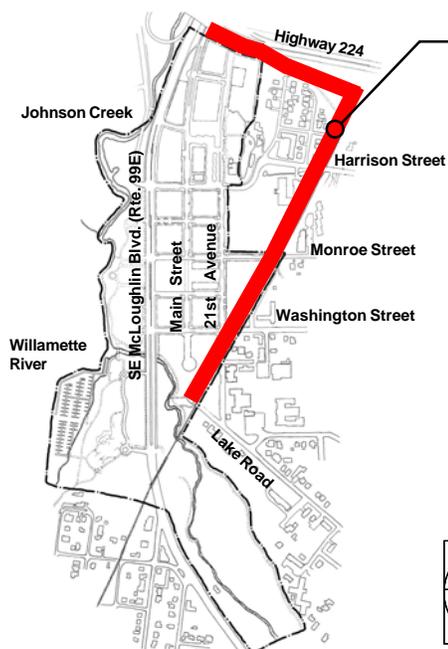
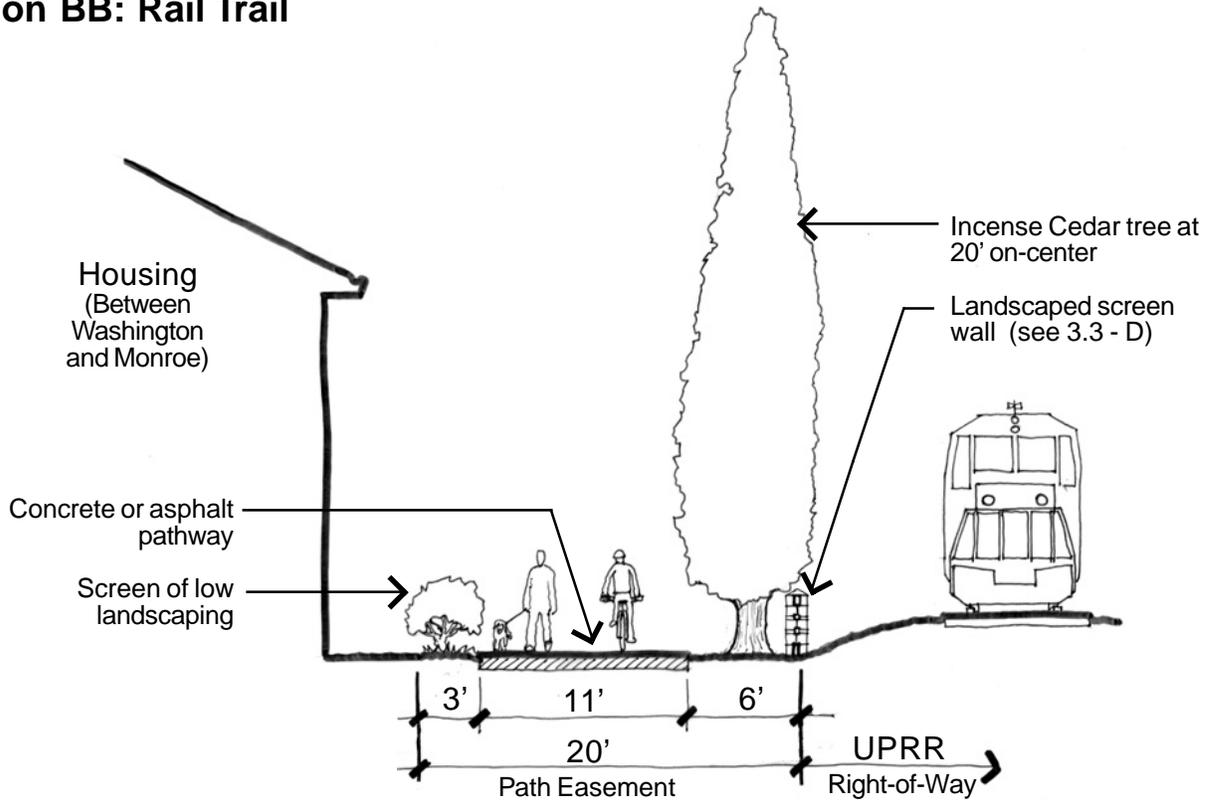
- South of Washington Street.
- Underground all utilities.
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.

Note: Existing right-of-way is 80'. The 50' dimension should be centered on existing right-of-way centerline. The remaining 30' of the right-of-way is to be vacated.

Street Standards

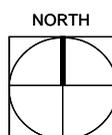
2.6 Pathway Sections*

Section BB: Rail Trail



Type BB - "Rail Trail"

- Recreational path adjacent to the Union Pacific RR right-of-way from near the intersection of Main Street and Adams Street heading north-east to the Highway 224 right-of-way. The path then heads west and concludes at Main Street.
- No RR along this section
- For Street Furniture, see Section 3.5.
- For Bicycle Facilities, see Section 3.6.



* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable. Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs.

3. Design Details

The design details provide specific construction details and design criteria for critical elements of public areas - streets, parks and trails. These detailed requirements assure high quality and unified design in public areas.

Unity

Often downtowns have general standards without explicit detail, relying on individual development projects to determine details and construction of right-of-way improvements. As a result, this incremental approach provides a variety of different paving detailing, street furniture and lighting. While the implicit intent may be to provide individual expression, it more often results in chaos.

To avoid chaos, the Downtown and Riverfront Plan prescribes specific details and criteria with the intent of establishing a common thread throughout the area, linking the many different land uses and architecture styles.

Function and Aesthetics

Downtown cannot prescribe to a “one-size-fits-all” approach. The details recognize that roads, walks, paths and trails often serve many different and conflicting roles. The details and criteria recognize that specific details are appropriate only if they respond to the function or use of the street. However, in no case is the pedestrian environment compromised. For the downtown to again become the heart of the community, the pedestrian must always be the priority.

The aesthetics of the streets are very important. They signal to the community and potential investors that our downtown is a desirable, safe and clean place to be - a

place worthy of investment. The details in many cases exceed minimum requirements or standard details. While some additional costs may be incurred initially, high-quality, well-built infrastructure will be more durable, and, when amortized over time, more cost effective.

Details are provided for:

- Streets and Pathways*
- Sidewalks*
- Landscape
- Streetlights
- Street Furniture
- Bicycle Facilities

* Main Street Brick Details may also apply to the North Main Redevelopment Site.

Street Details and Design Criteria

Details and criteria are provided for curbs, gutters, parking lanes and crosswalks for public right-of-way areas only. However, construction of all streets within the downtown and riverfront area, including street elements within private parcels, must be consistent with all basic provisions and uses of the City of Milwaukie Zoning Ordinance.

Implementation of Street Design Details

Section 3 illustrates typical materials and dimensions for design features including curb and gutter, corner radii, brick pavers, sidewalks, and others. Design details in Section 3 shall be followed to the greatest extent practicable. However, certain features shown in the typical designs may require modification at the design stage due to dimensional constraints, design requirements for traffic management, or future needs not presently known.

Design Details

3.1 Streets*

A. Mid-block Parking Lot/Structure Access

Entrances into off-street surface or structured parking areas should be through driveways located approximately at mid-block and a minimum of 50' from the corner right-of-way line. The design should make clear that drivers are crossing a pedestrian zone by maintaining sidewalk paving across the driveway, and ramping the driveway to maintain as level a walking area as possible.

Size: 24' maximum driveway width

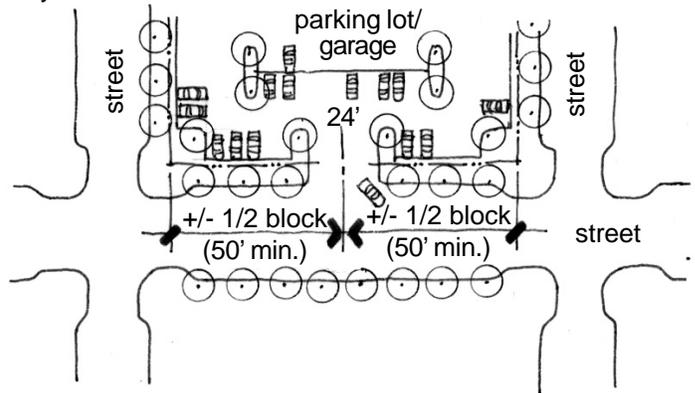
Location:

- Approximately mid-block
- A minimum of 50' from the corner right-of-way line

Application: Driveways are encouraged on east-west

Cross-streets:

- Harrison
- Jackson
- Monroe
- Jefferson
- Washington

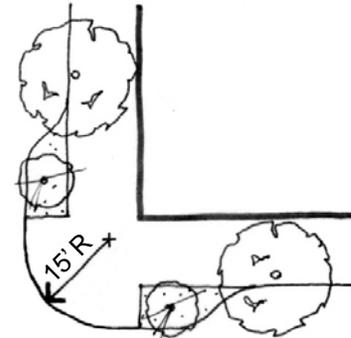


B. Corner Radii

Street intersections are curved at their corners to allow vehicles enough space to turn safely, without adversely impacting pedestrian crosswalks.

Size: 15' maximum radius

Application: Typical street corners

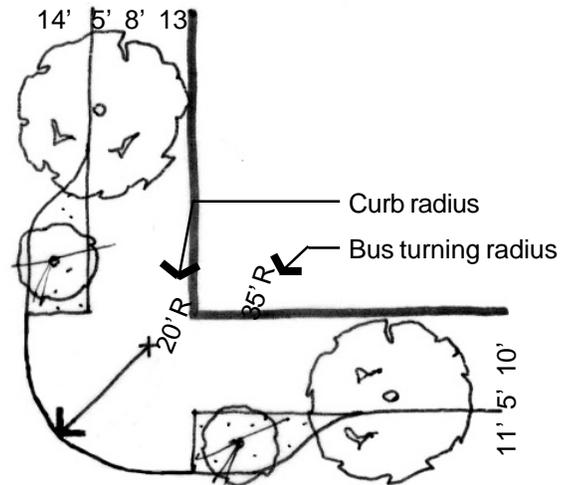


Size:

- 20' max. radius: Bus/truck routes with bike lanes
- 35' max. radius: Bus/truck routes without bike lanes

Application: 20' ± R: Limited to certain intersection corners along transit routes (see transit route diagram - 1.11):

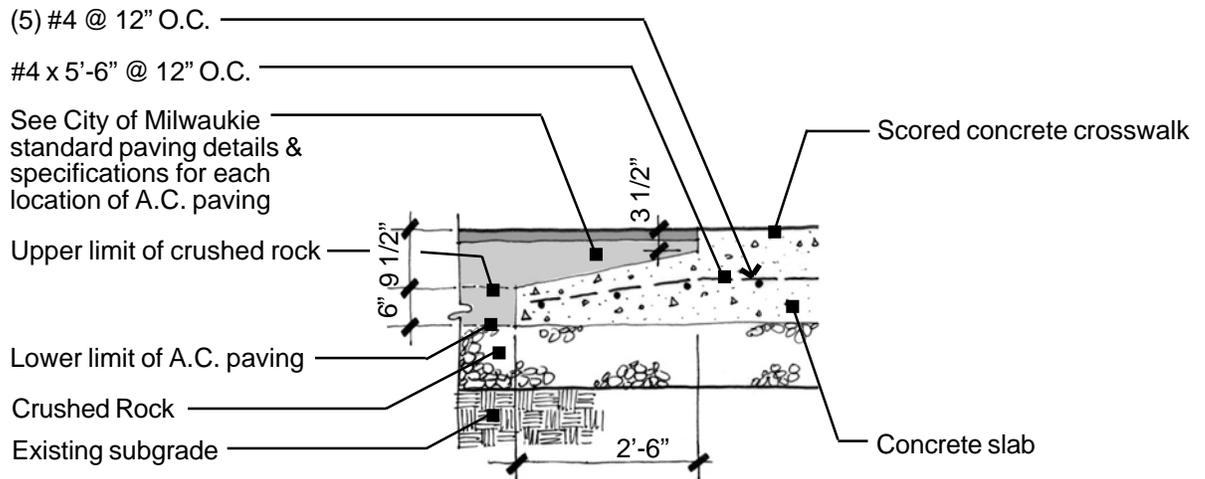
- Right turn from McLoughlin Boulevard onto Harrison Street (SE corner)
- Right turn from Harrison Street onto Main Street (NE corner)
- Right turn from Main Street onto Harrison Street (NW corner)
- Right turn from Washington Street onto 21st Avenue (NE corner)



Design Details

3.1 Streets*

E. Asphalt Street to Concrete Crosswalk Transition



Application: All Crosswalks

Design Details

3.2 Sidewalks

Details and design criteria are applicable for construction or reconstruction of sidewalks in all public right-of-ways. Construction of walkways within private development parcels must be consistent with existing City of Milwaukie Department of Public Works existing standards.

A. Sidewalk Zone Requirements

See “Pedestrian Criteria: Sidewalk Widths and Zones” following in Section 3.2-C for sections illustrating the three sidewalk zones. See Plan Details in Section 3.2-D “Paving” for brick layout, concrete scoring, and tree and light fixture locations.

Through Pedestrian Zone

The Through Pedestrian Zone (TPZ) is the area of the sidewalk where pedestrians can pass through without obstructions side-by-side.

Furnishing Zone

The Furnishing Zone (FZ) is the space along the length of the sidewalk for elements encouraging pedestrian use of the right-of-way. Such elements include landscaping, lighting, benches, bike racks and transit shelters. In all pervious areas, landscaping must be soft (grass or groundcover). In limited high-traffic areas, rigid pavement may be used. Vertical elements--such as “loading zone” signs - permanently located in the Furnishing Zone must be set back 18” from the face of the curb.

Building Frontage Zone

The Building Frontage Zone (BFZ) is the area of the sidewalk adjacent to the building itself. The BFZ is not a part of the Pedestrian Through Zone, and thus may contain such elements as pedestrian furniture (cafe tables and chairs, etc.), signs or planters in front of the building.

B. A.D.A Requirements

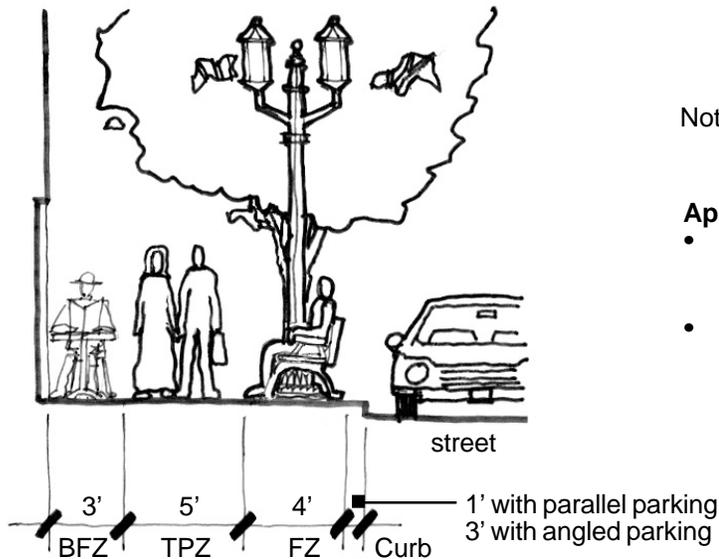
Curb ramps, access routes, warning strips, etc., must conform with the requirements of the Americans with Disabilities Act.

Application: On all streets.

Design Details

3.2 Sidewalks*

C.1 Pedestrian Criteria: Sidewalk Widths and Zones Main Street 13'-15' Sidewalks

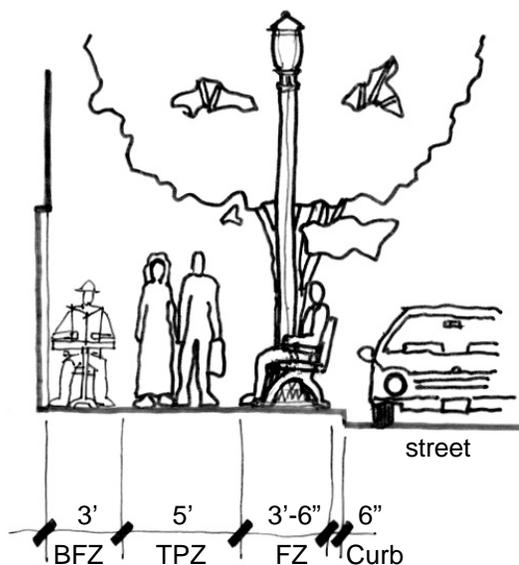


Note: 15' condition occurs with angled parking

Application:

- Main Street between North Main Redevelopment Site and Monroe Street
- Main Street between Jefferson and Washington Street

C.2 Pedestrian Criteria: Sidewalk Widths and Zones 12' Sidewalks



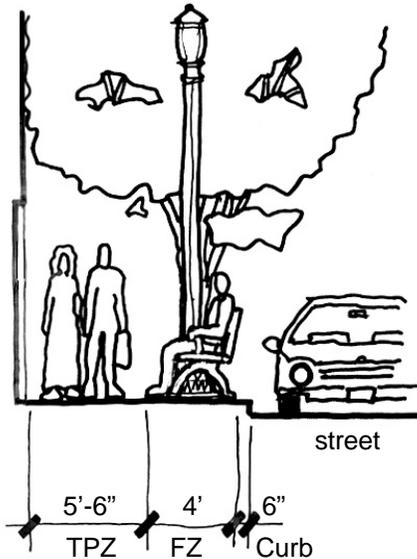
Application:

- Monroe Street west of 21st Avenue - North side only
- Jefferson Street - south side only

Design Details

3.2 Sidewalks*

C.3 Pedestrian Criteria: Sidewalk Widths and Zones 10' Sidewalks

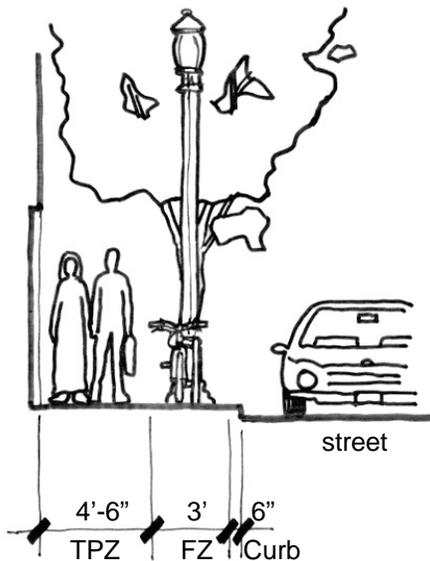


Application: *

- Jackson Street
- Monroe Street west of 21st - south side only
- Jefferson Street - north side only
- 21st Avenue south of Harrison
- Harrison Street west of Main
- Washington Street west of Main

* Note: At bus stops along transit routes, the Furnishing Zone is reserved for bus shelters and passenger waiting areas

C.4 Pedestrian Criteria: Sidewalk Widths and Zones 8' Sidewalks



Application:

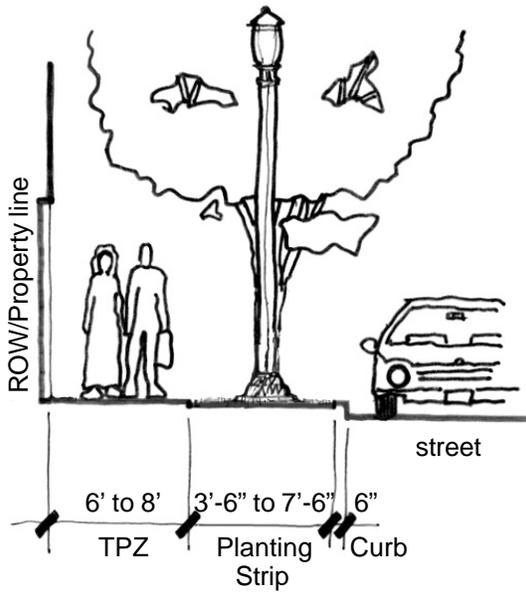
- McLoughlin Bridge (street lights only in the FZ)
- Monroe Street east of 21st

* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable. Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs.

Design Details

3.2 Sidewalks*

C.5 Pedestrian Criteria: Sidewalk Widths and Zones Sidewalks with Planting Strips



Application:

- McLoughlin Boulevard excluding bridges
- Main Street north of North Main Redevelopment Site
- 21st Avenue north extension
- new streets

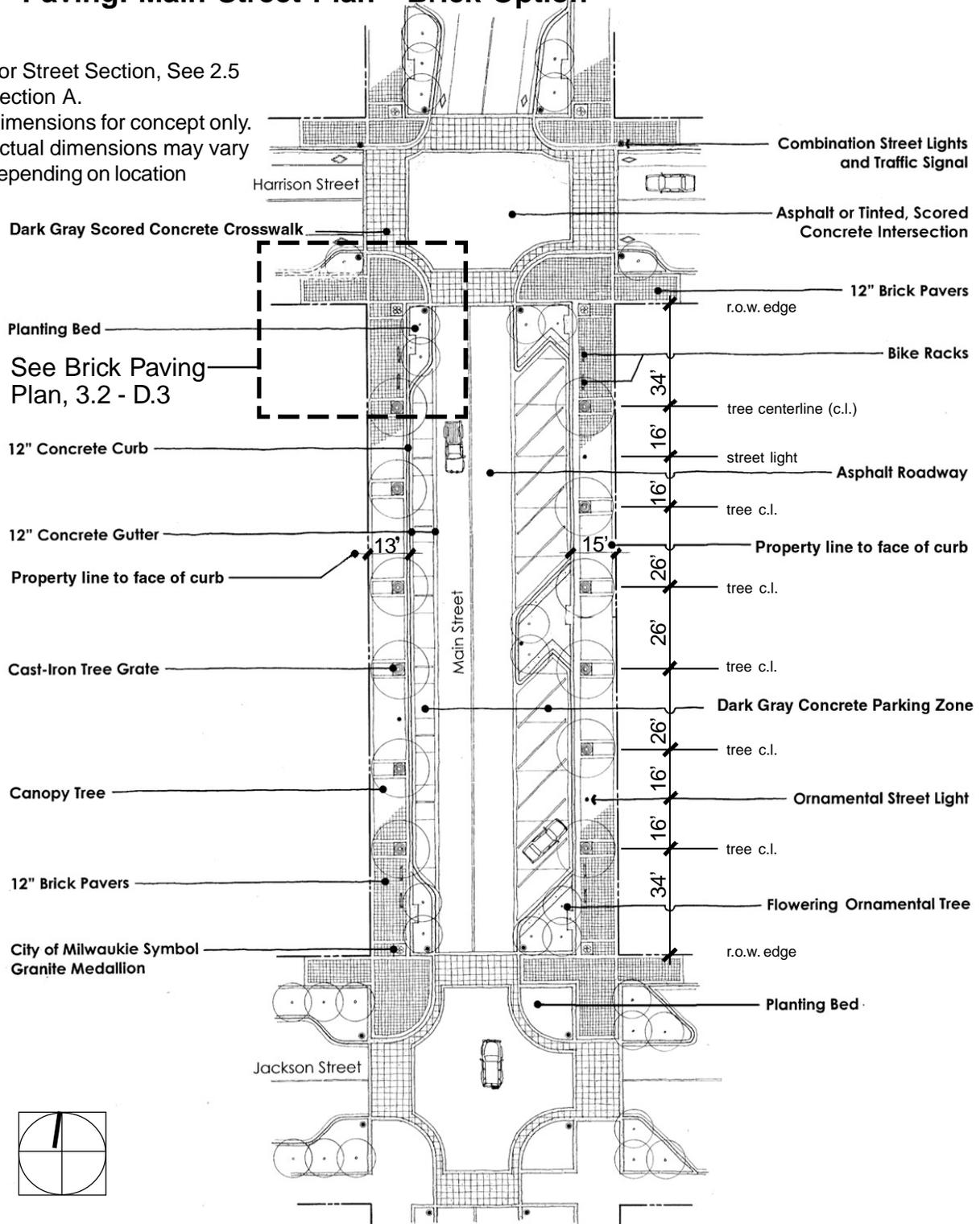
Design Details

3.2 Sidewalks*

D.1 Paving: Main Street Plan - Brick Option

Note:

1. For Street Section, See 2.5 Section A.
2. Dimensions for concept only. Actual dimensions may vary depending on location



* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable. Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs.

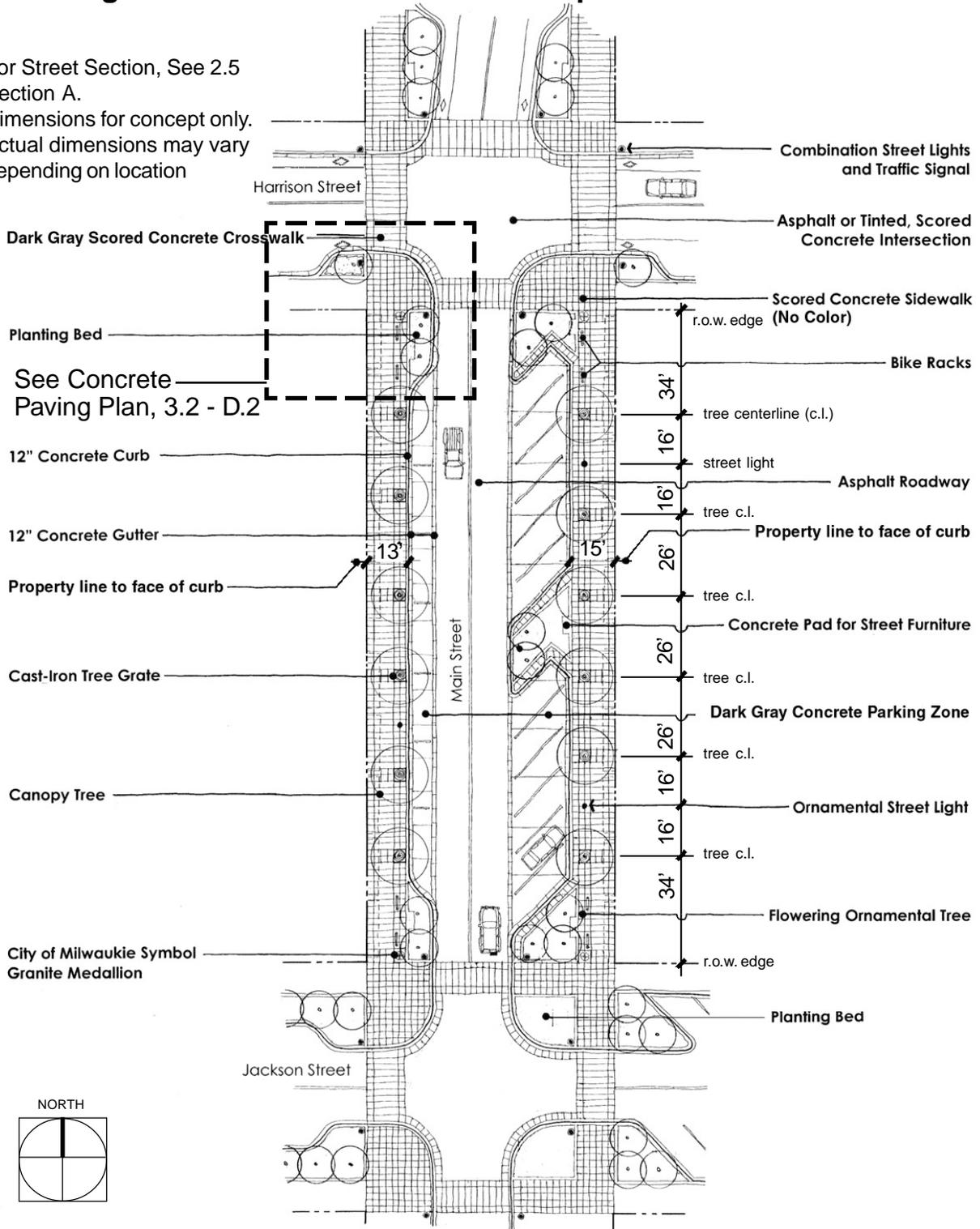
Design Details

3.2 Sidewalks*

D.2 Paving: Main Street Plan - Concrete Option

Note:

1. For Street Section, See 2.5 Section A.
2. Dimensions for concept only. Actual dimensions may vary depending on location



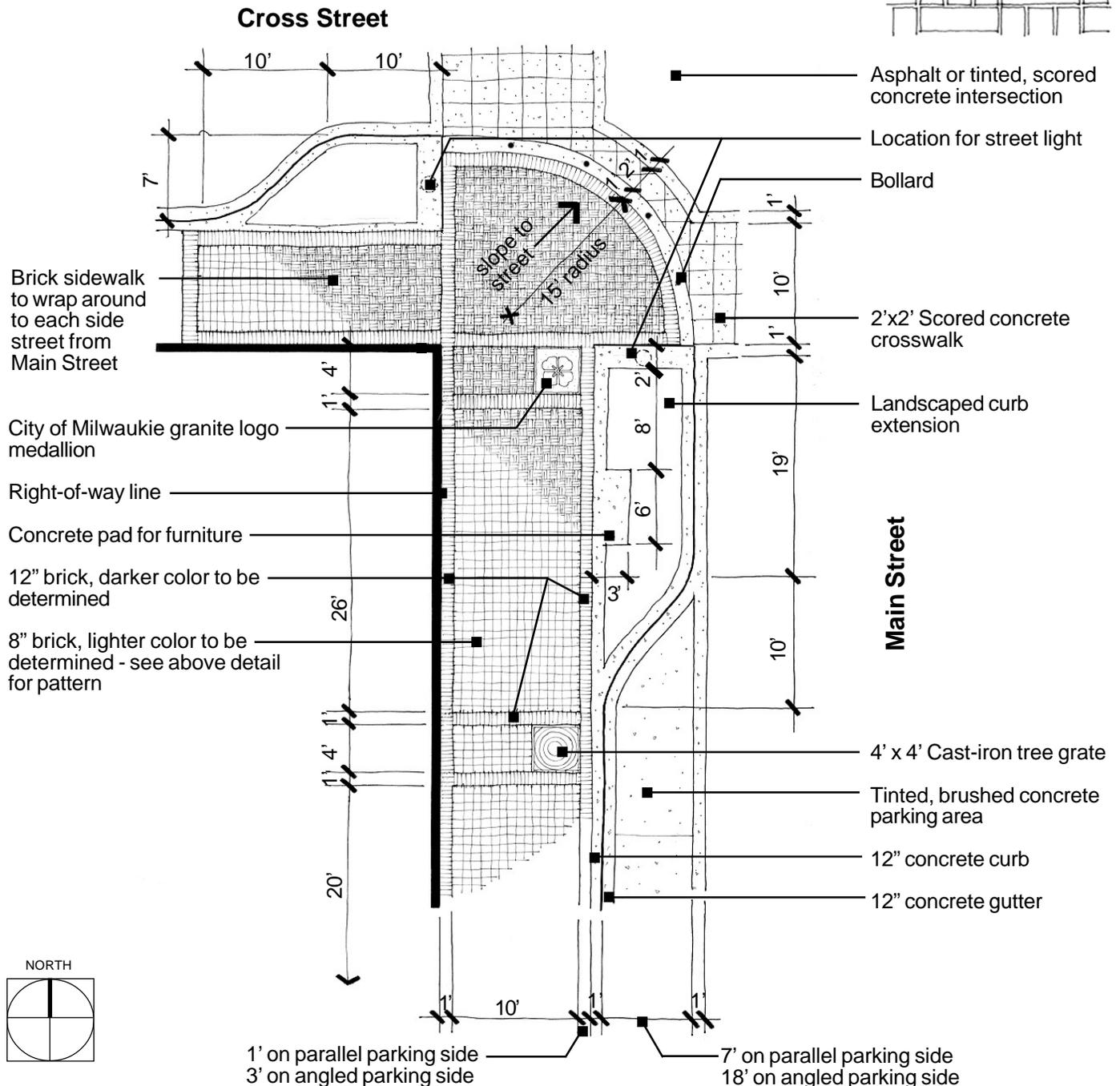
Design Details

3.2 Sidewalks*

D.3 Paving: Brick Option Corner Plan Concept Detail

Note:

1. Dimensions for concept only. Actual dimensions may vary depending on location



* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable. Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs. Page 63

Design Details

3.2 Sidewalks

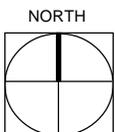
D.5 Paving: Illustrative Plan - Main Street Plaza & Main Street Plaza Zone

Note:

1. See Section 3.2-D10, D11, D12, and D13 for paving plan details.
2. Plaza Concept Plan for reference only. Final Plaza plan to be refined.



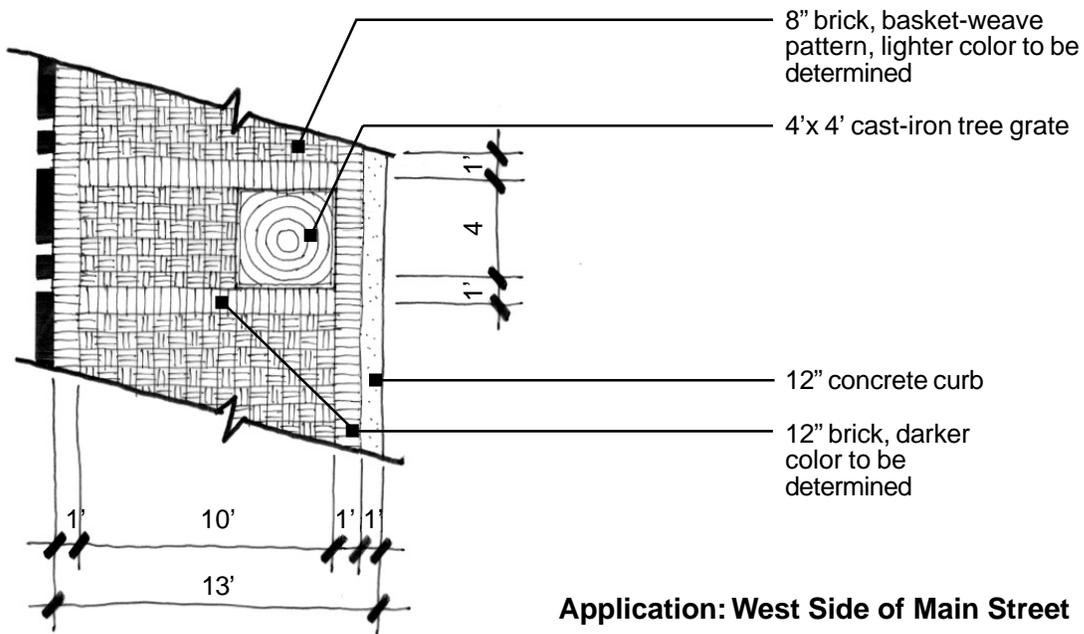
The location and design of the Main Street Plaza is conceptual only and illustrates the City's proposed land use framework for this area. The final plaza are design, size and location will be refined and finalized as the opportunity becomes available for tis development. Until such time as the plaza plan is approved for development, the block bounded by Monroe, Main, Jefferson and McLoughlin may be used and developed consistently with applicable zoning.



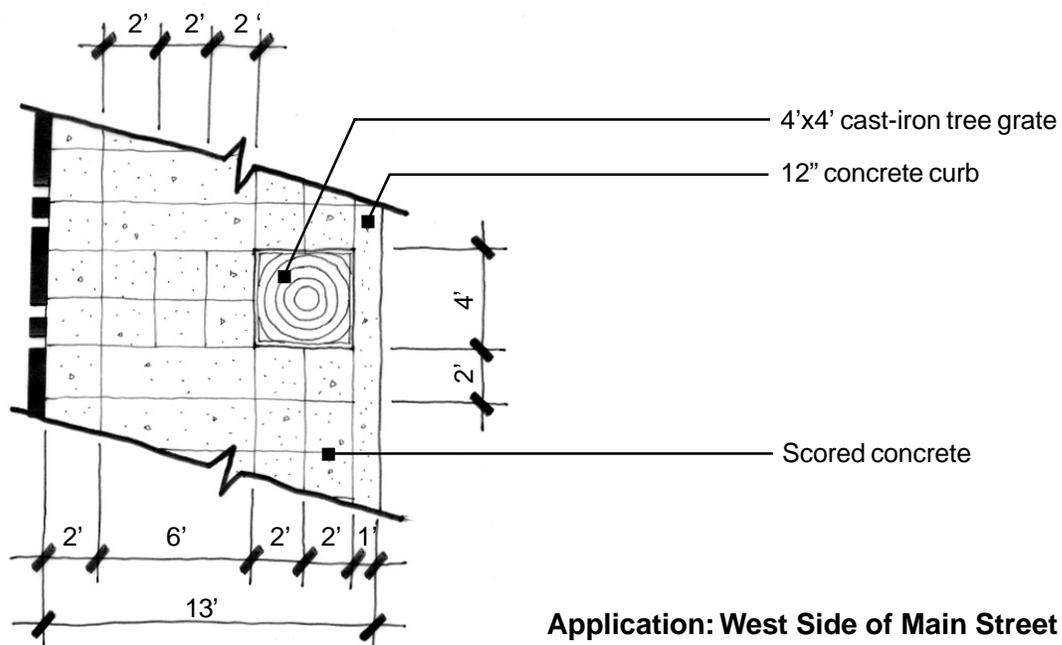
Design Details

3.2 Sidewalks*

D.6 Paving: Main Street - Brick Option Plan Detail @ 13' Sidewalk



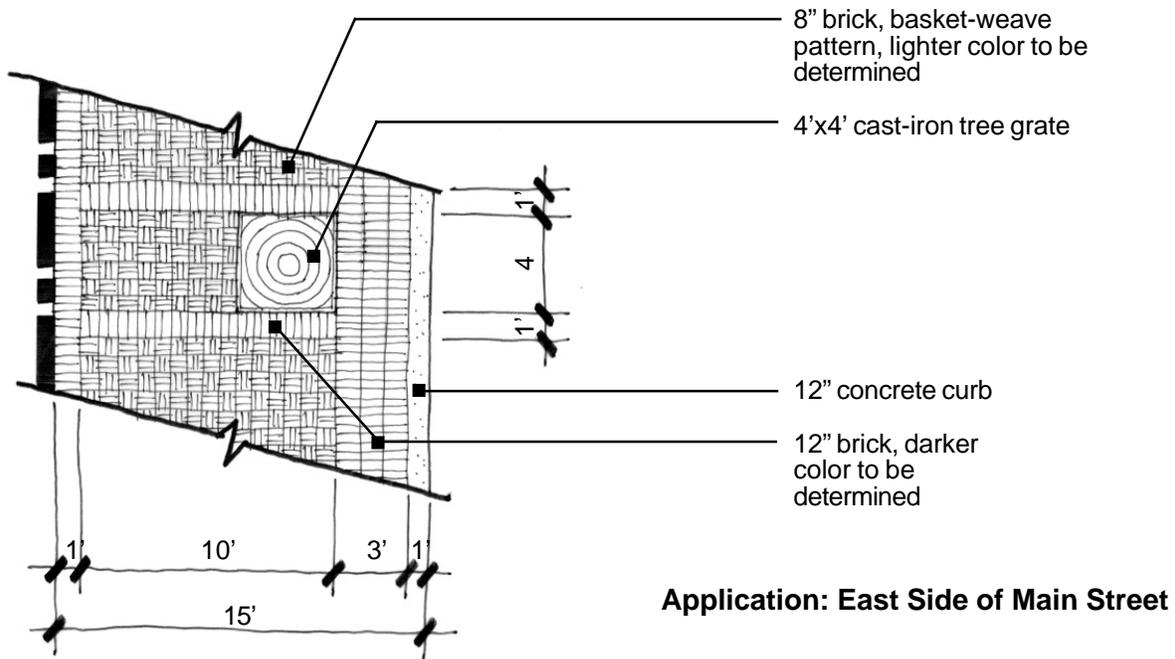
D.7 Paving: Main Street - Concrete Option Plan Detail @ 13' Sidewalk



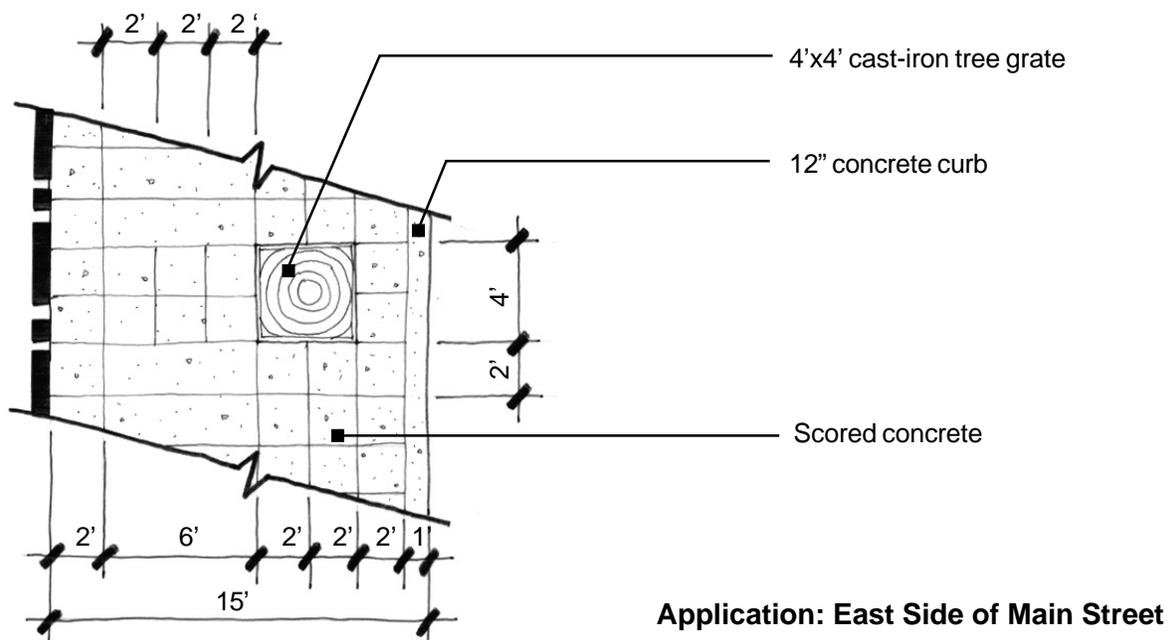
Design Details

3.2 Sidewalks*

D.8 Paving: Main Street - Brick Option Plan Detail @ 15' Sidewalk



D.9 Paving: Main Street - Concrete Option Plan Detail @ 15' Sidewalk

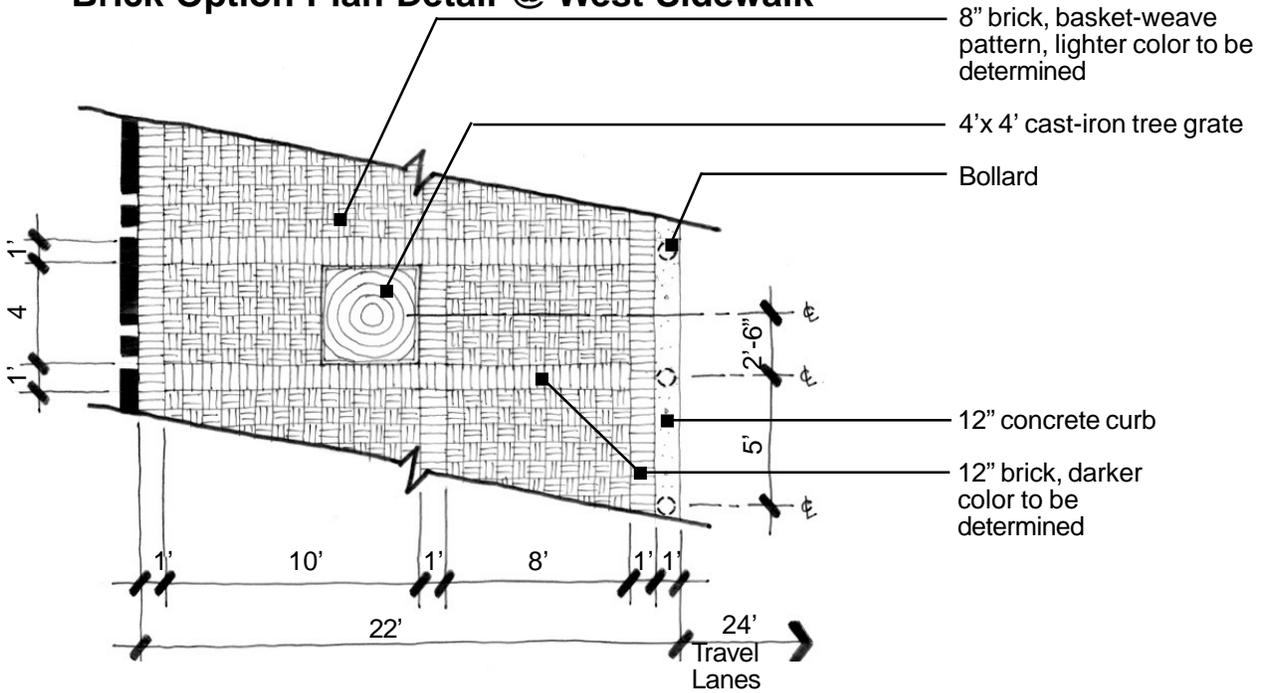


* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable. Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs.

Design Details

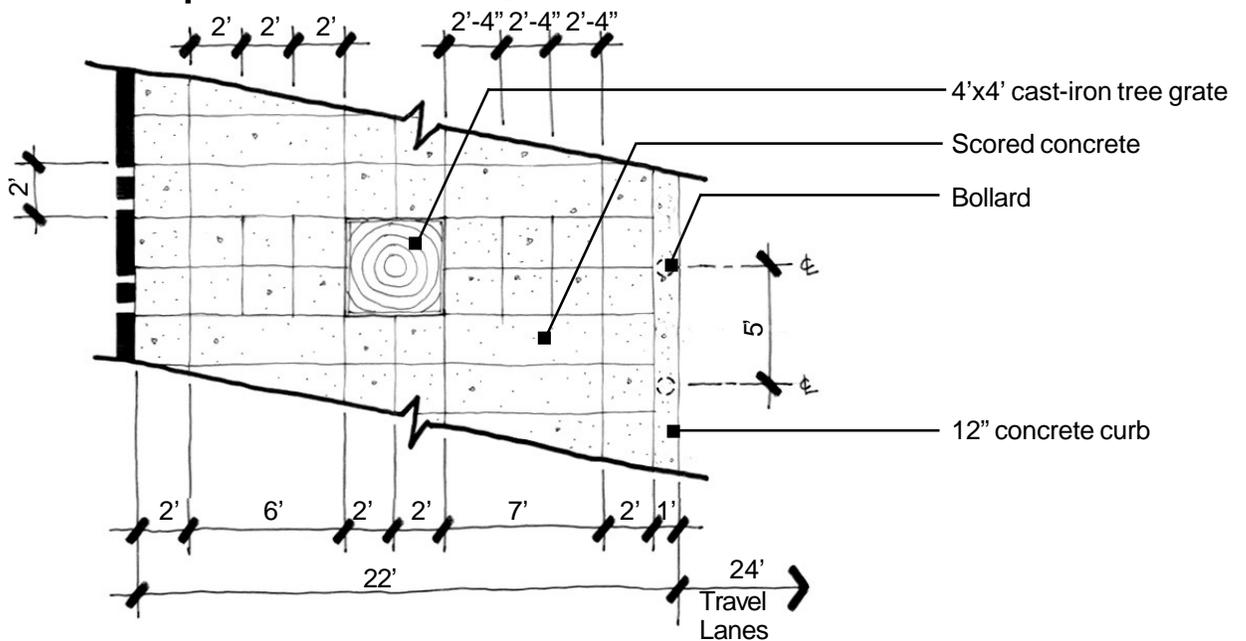
3.2 Sidewalks*

D.10 Paving: Main Street Plaza Zone Brick Option Plan Detail @ West Sidewalk



Application: West Side of Main Street Plaza

D.11 Paving: Main Street Plaza Zone Concrete Option Plan Detail @ West Sidewalk

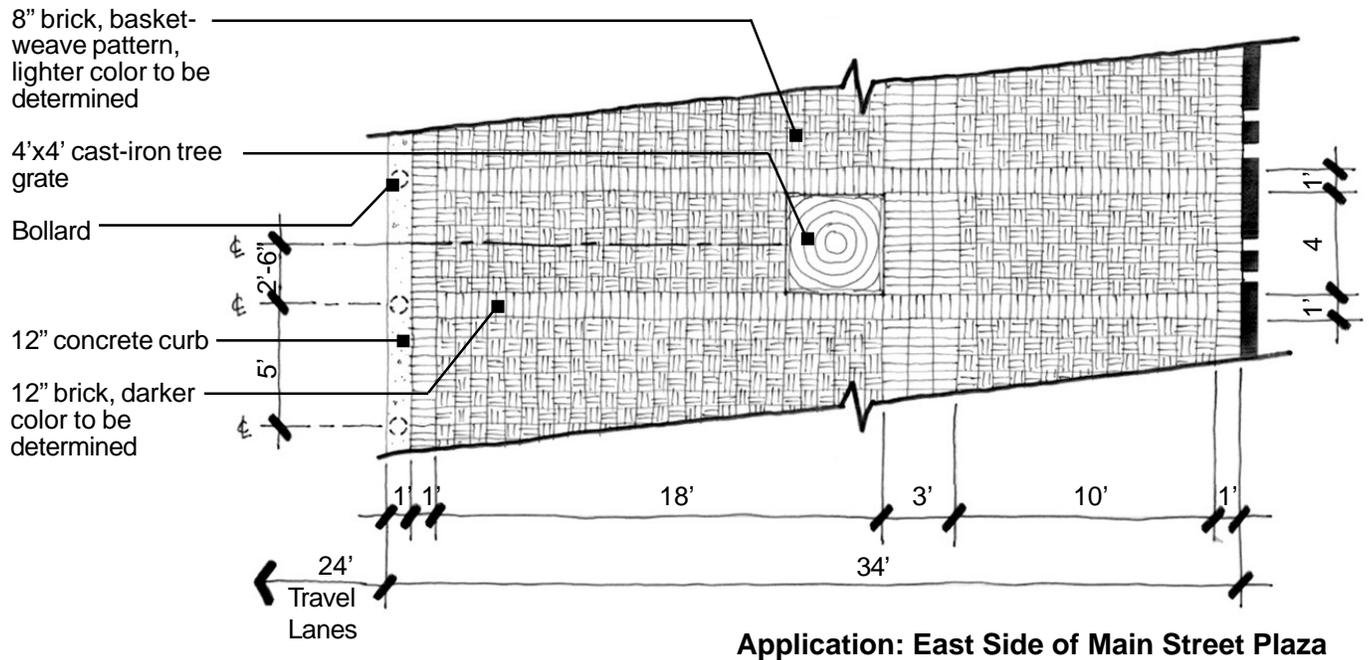


Application: West Side of Main Street Plaza

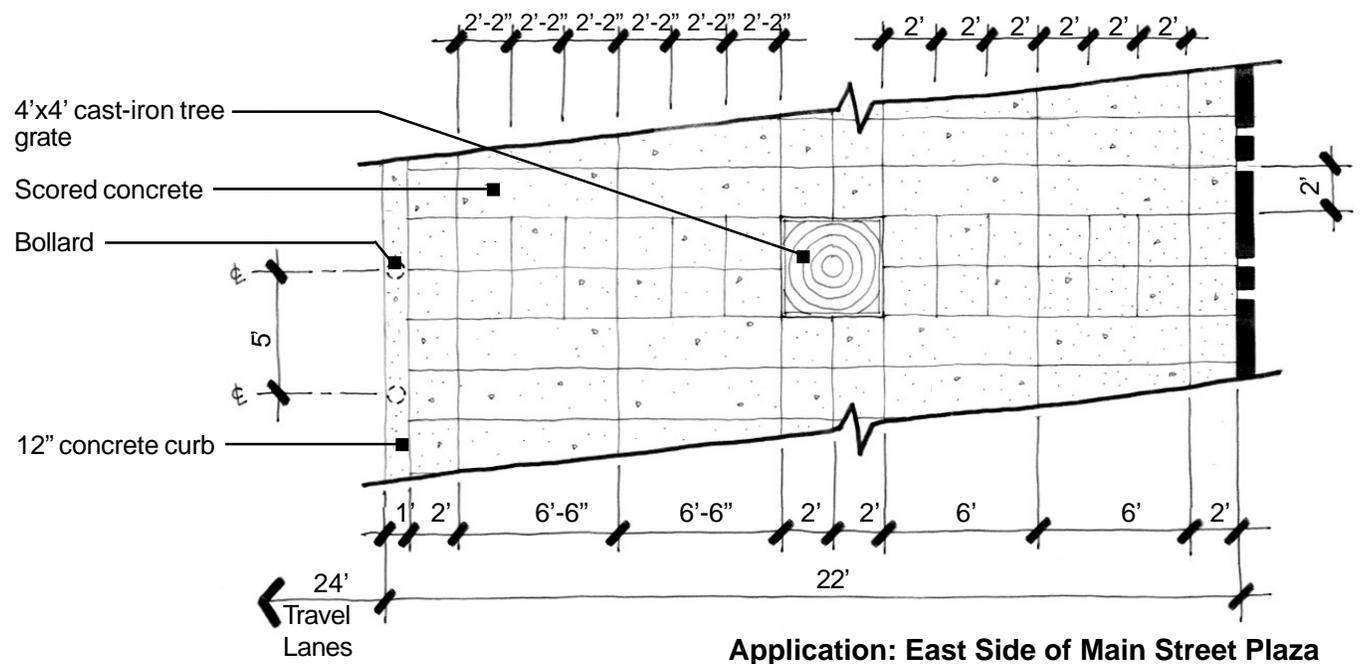
Design Details

3.2 Sidewalks*

D.12 Paving: Main Street Plaza Zone Brick Option Plan Detail @ East Sidewalk



D.13 Paving: Main Street Plaza Zone Concrete Option Plan Detail @ East Sidewalk



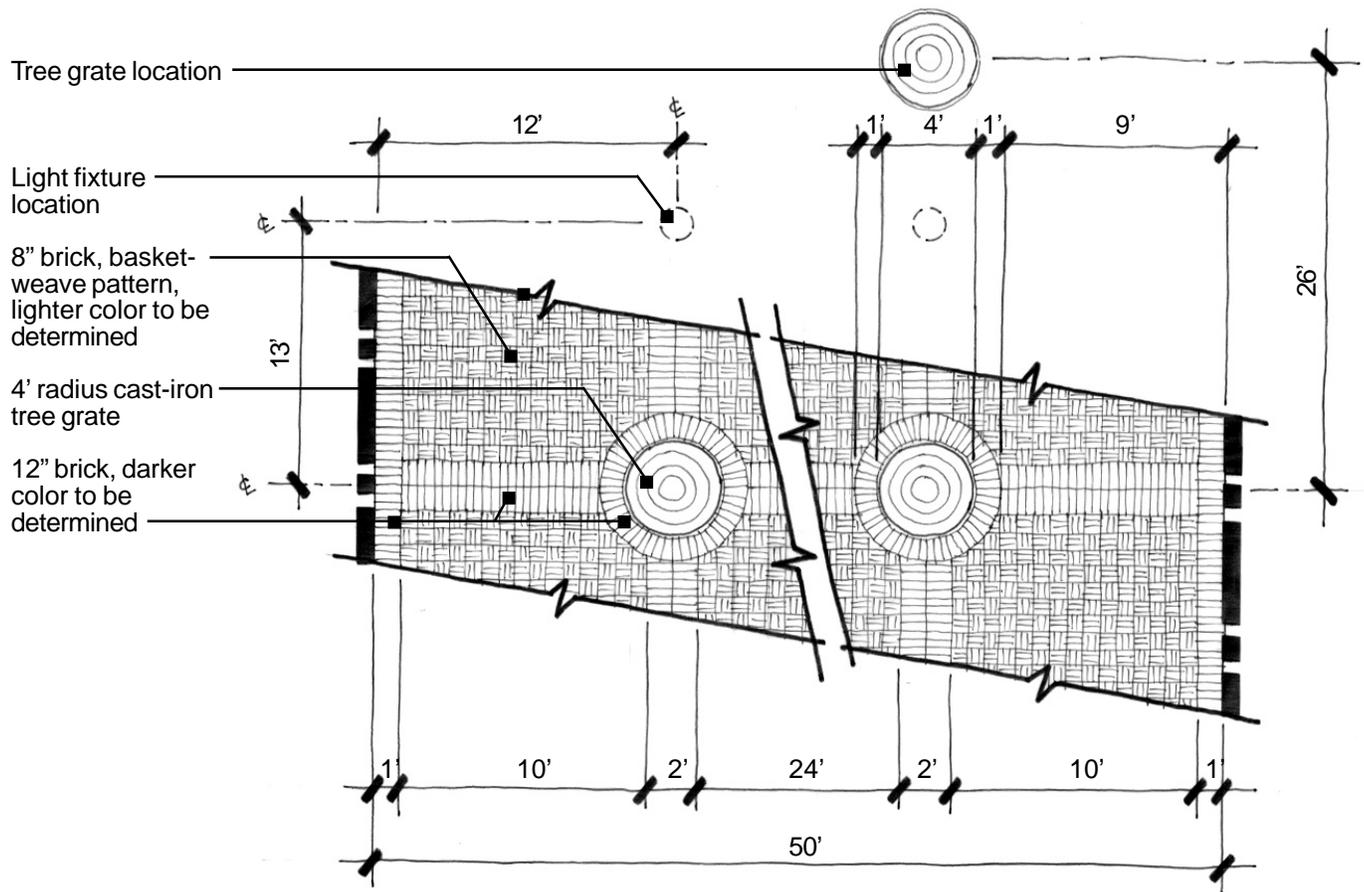
* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable.

Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs.

Design Details

3.2 Sidewalks*

D.14 Paving: Main Street Walk - Brick Plan Detail

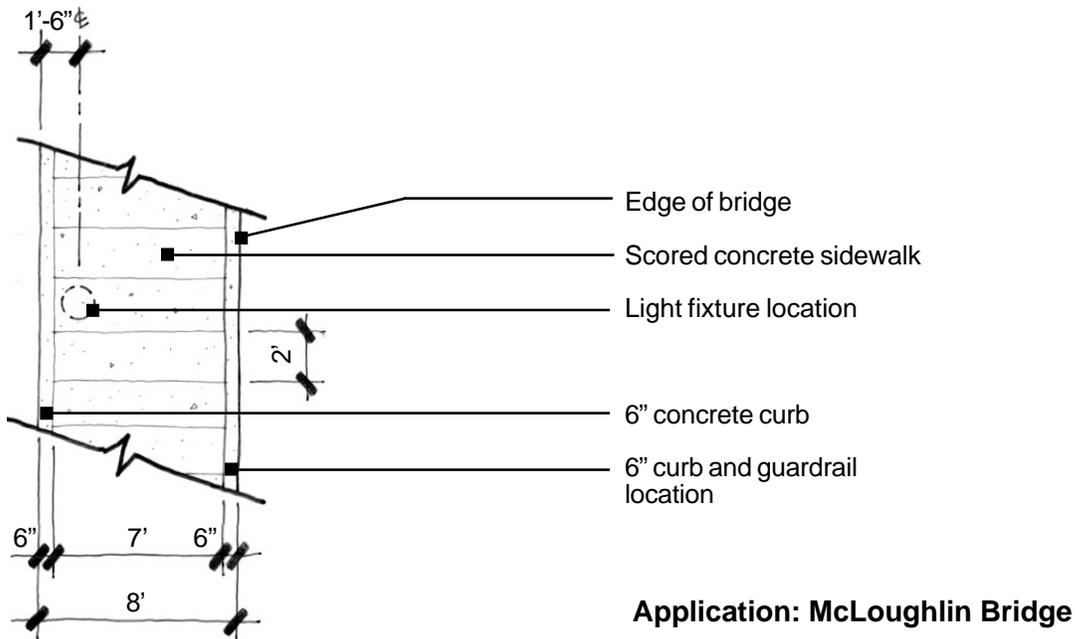


**Application: Main Street Pedestrian Zone
south of Washington Street**

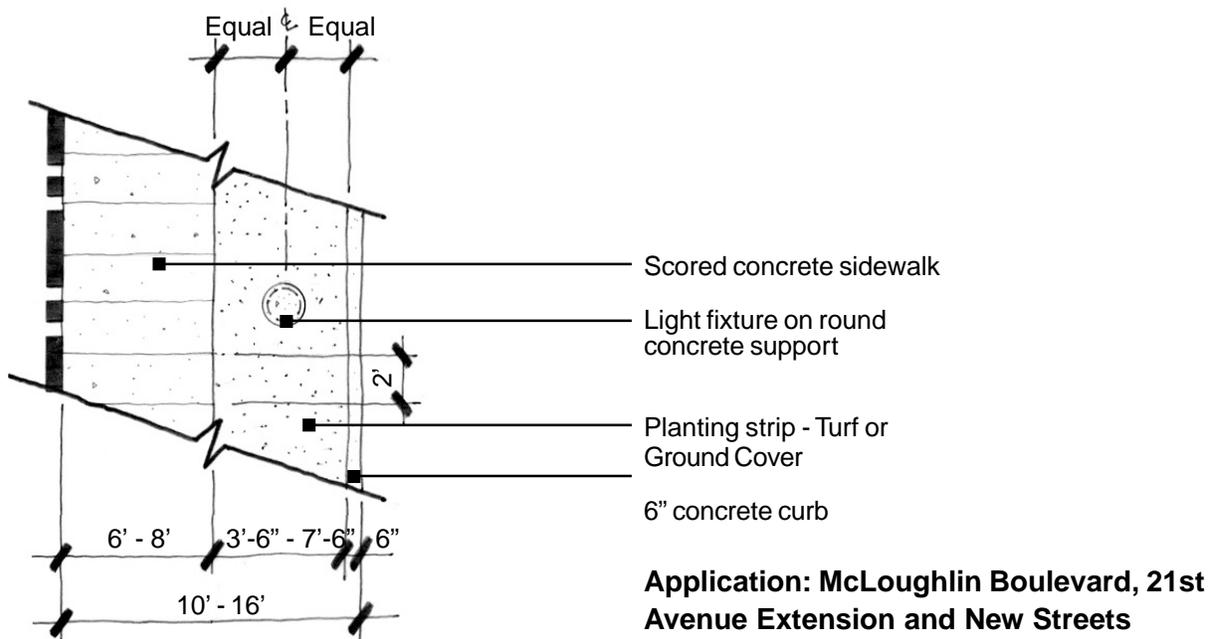
Design Details

3.2 Sidewalks*

D.15 Paving: McLoughlin Bridge - Sidewalk Plan Detail



D.16 Paving: Sidewalk with Planting Strip Plan Detail

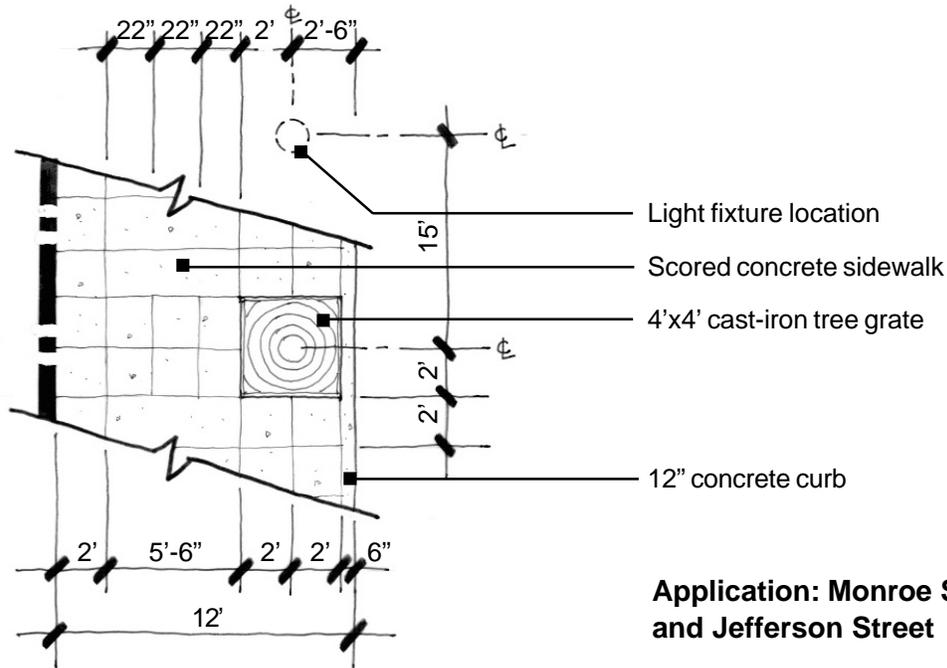


* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable. Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs.

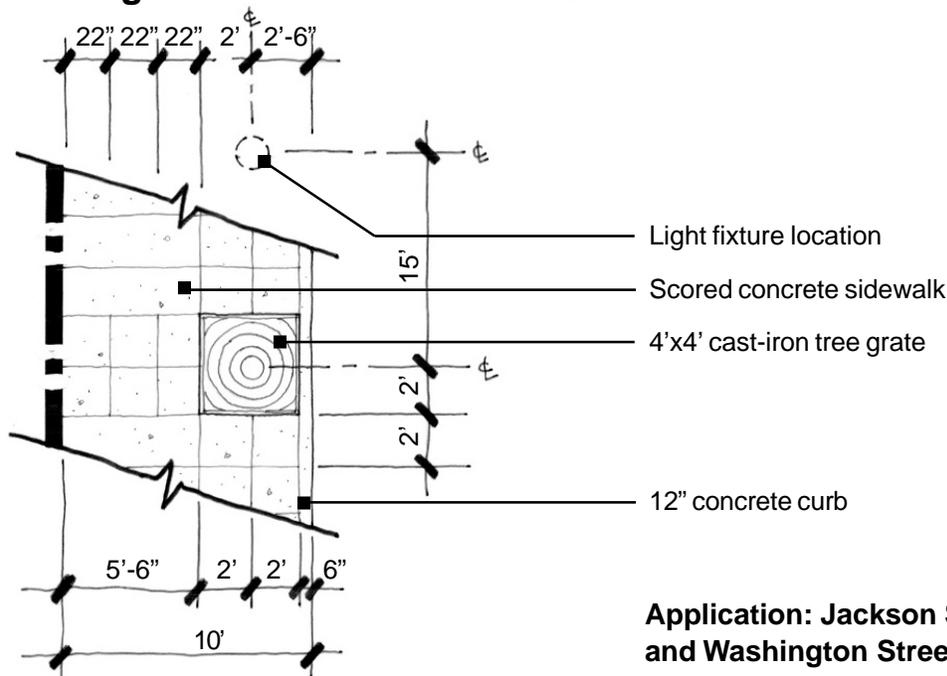
Design Details

3.2 Sidewalks*

D.17 Paving: Concrete Plan Detail @ 12' Sidewalk



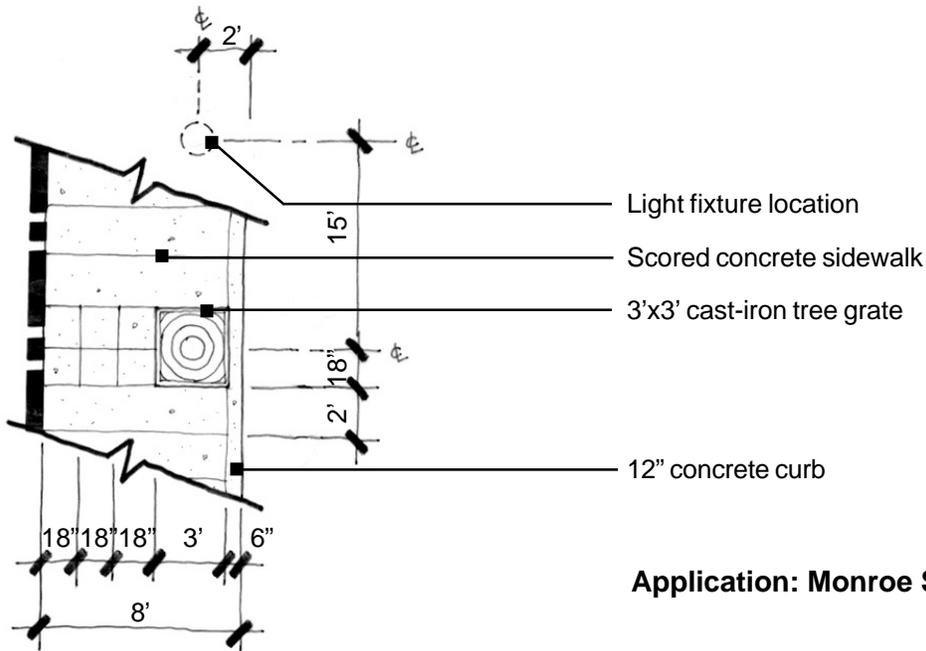
D.18 Paving: Concrete Plan Detail @ 10' Sidewalk



Design Details

3.2 Sidewalks*

D.19 Paving: Concrete Plan Detail @ 8' Sidewalk

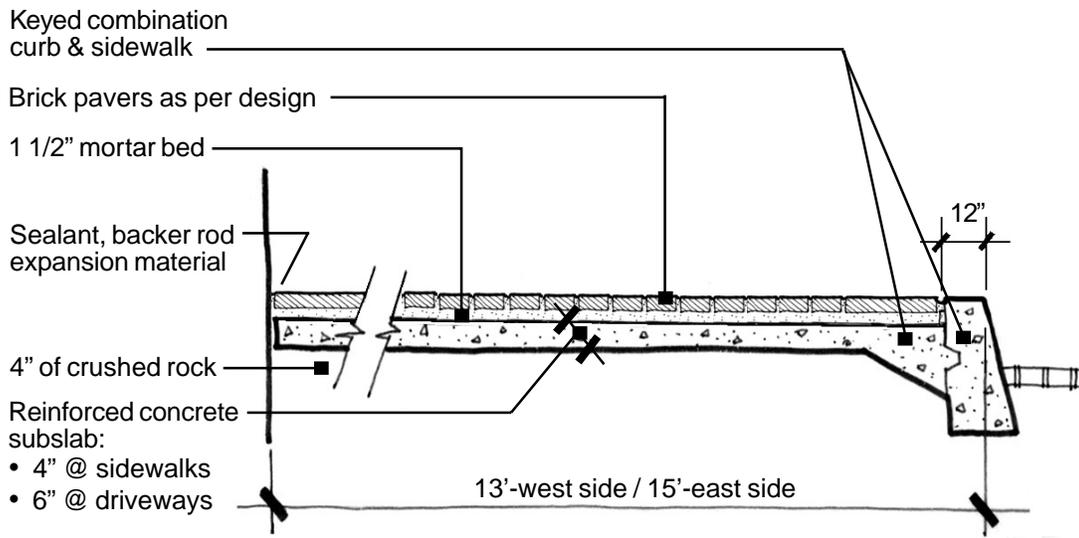


* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable. Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs.

Design Details

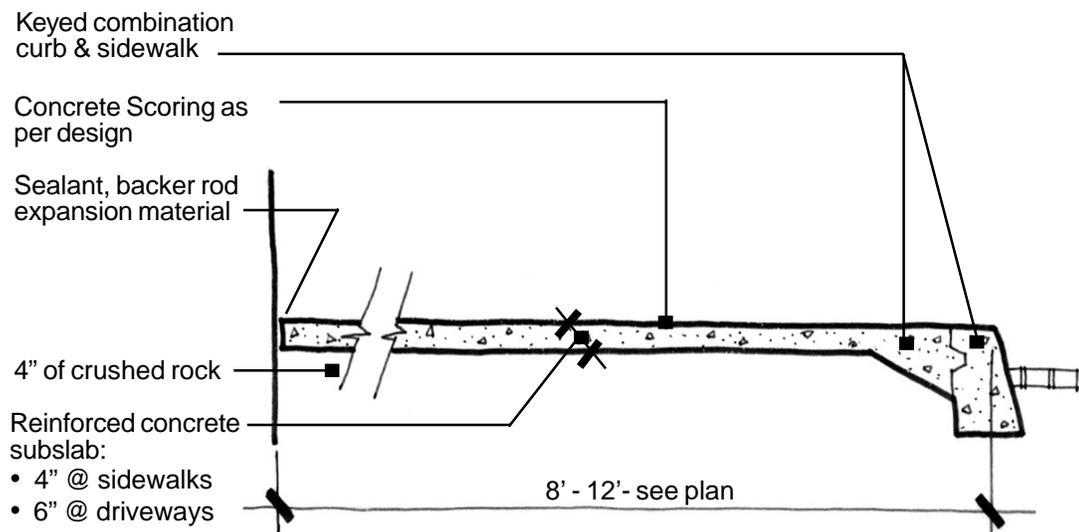
3.2 Sidewalks*

D.20 Paving: Main Street - Sidewalk Section Detail Brick Pavers Option



Application: Main Street

D.21 Paving: Main Street - Sidewalk Section Detail Concrete Option

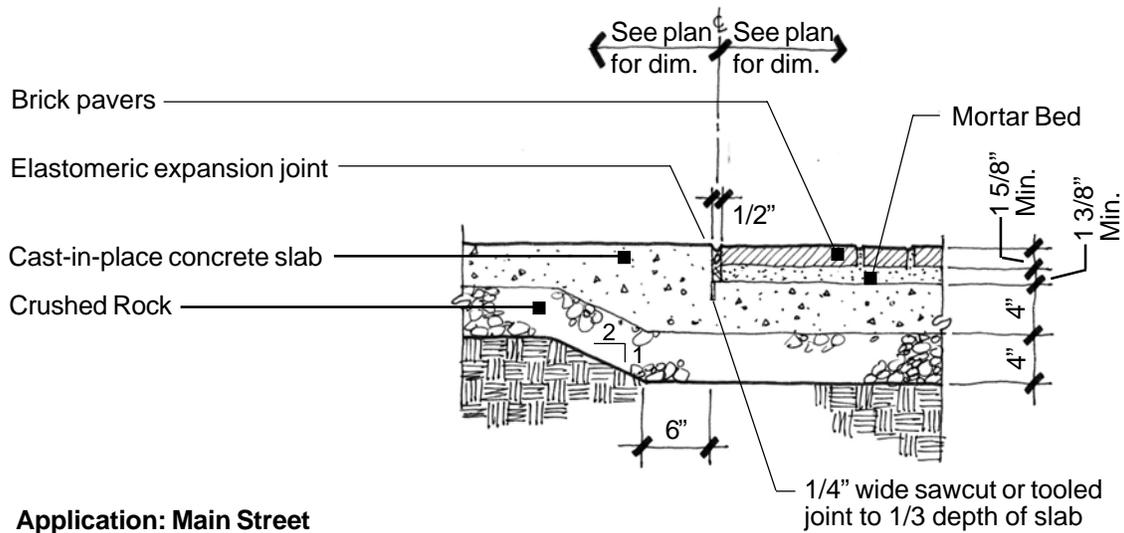


Application: All streets except Main Street brick paver option

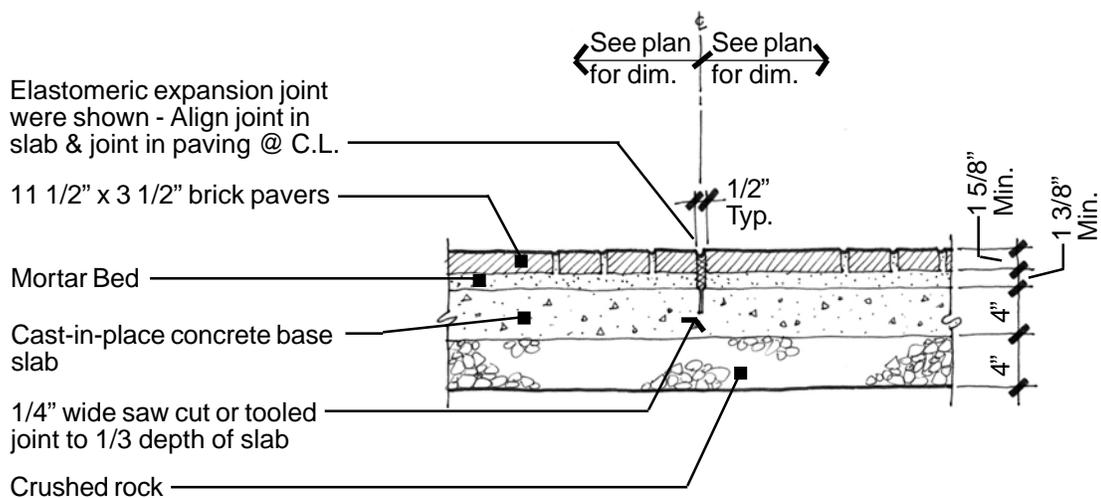
Design Details

3.2 Sidewalks*

D.22 Paving: Main Street - Brick Pavers to Concrete Transition



D.23 Paving: Main Street - Expansion Joint @ Brick Pavers

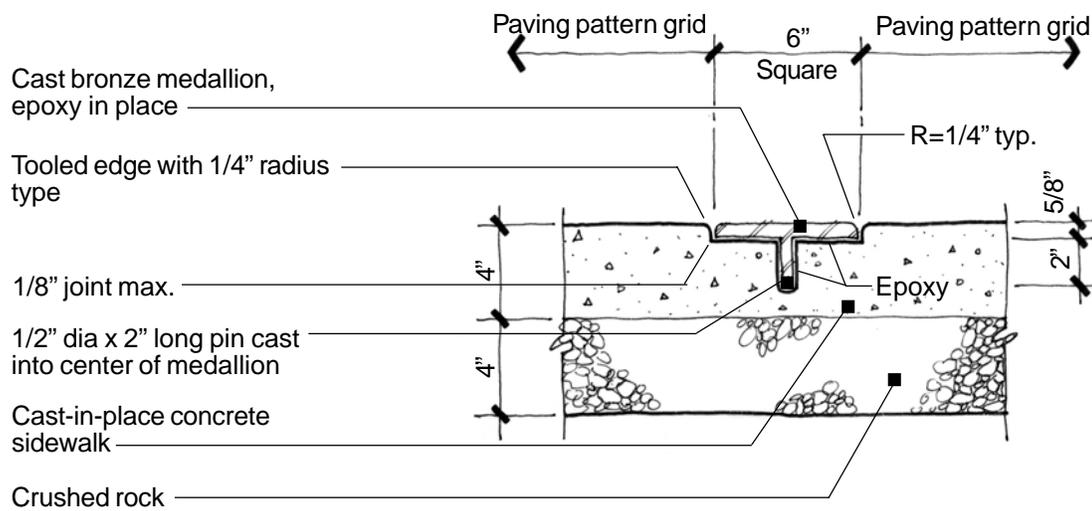


* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable. Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs.

Design Details

3.2 Sidewalks*

D.24 Paving: Main Street - Optional Medallion in Concrete

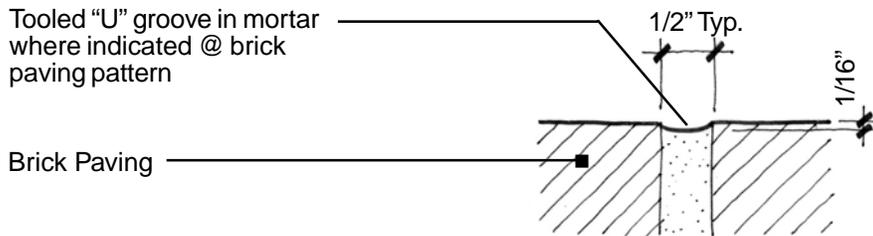


Application: Main Street

Design Details

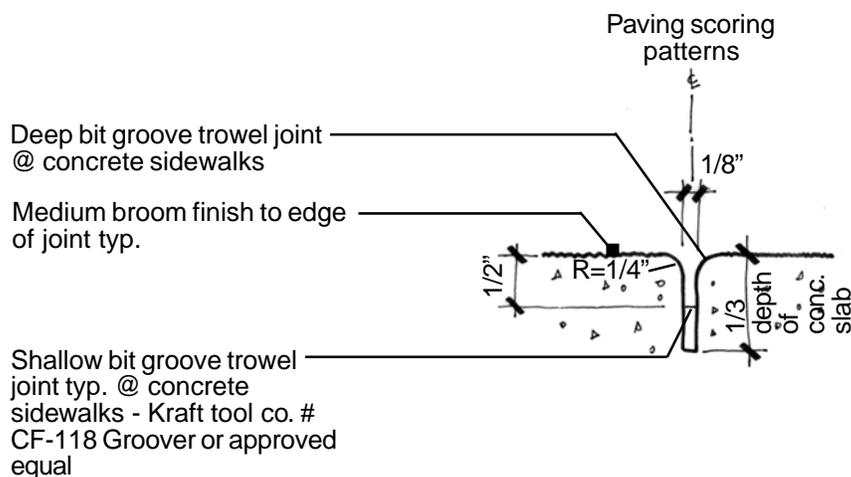
3.2 Sidewalks*

D.25 Paving: Main Street - Tool Joint Profile @ Brick Pavers



Application: Main Street

D.26 Paving: Tool Joint Profile @ Concrete Slab



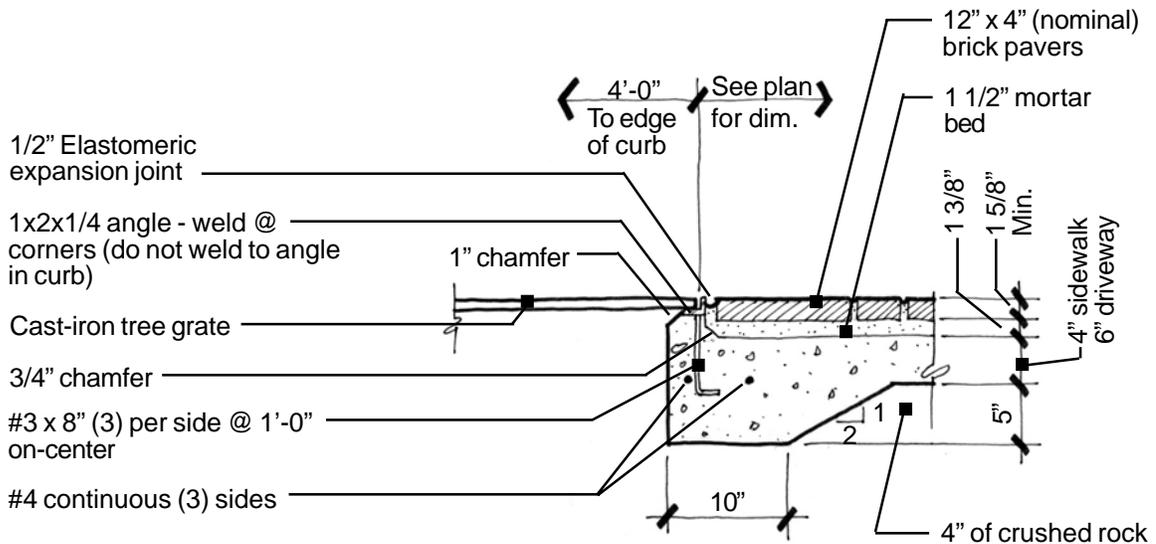
Application: All streets

* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable. Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs.

Design Details

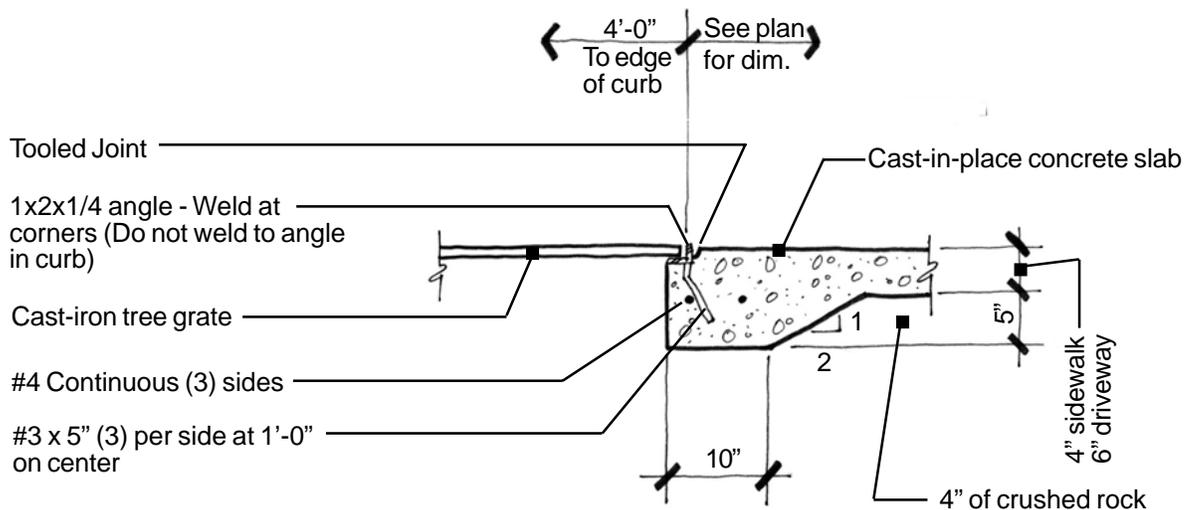
3.2 Sidewalks*

E.1 Tree Grates: Main Street - Section @ Brick Pavers Option



Application: Main Street

E.2 Tree Grates: Section @ Concrete Option

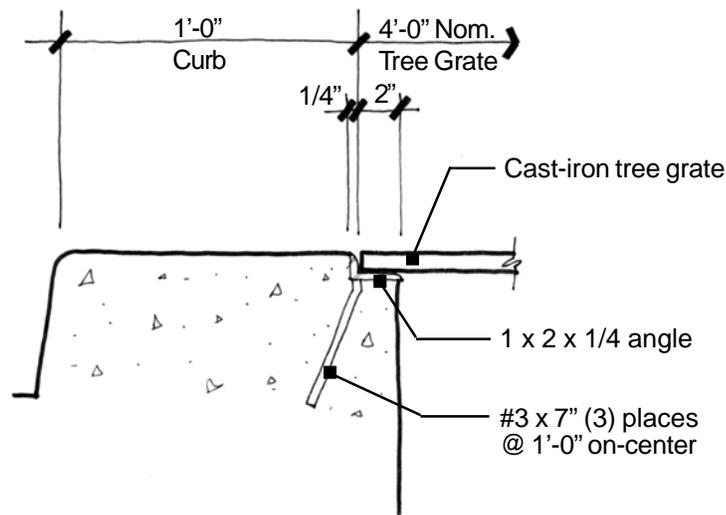


Application: All streets except Main Street brick option

Design Details

3.2 Sidewalks*

E.3 Tree Grates: Section @ Concrete Curb



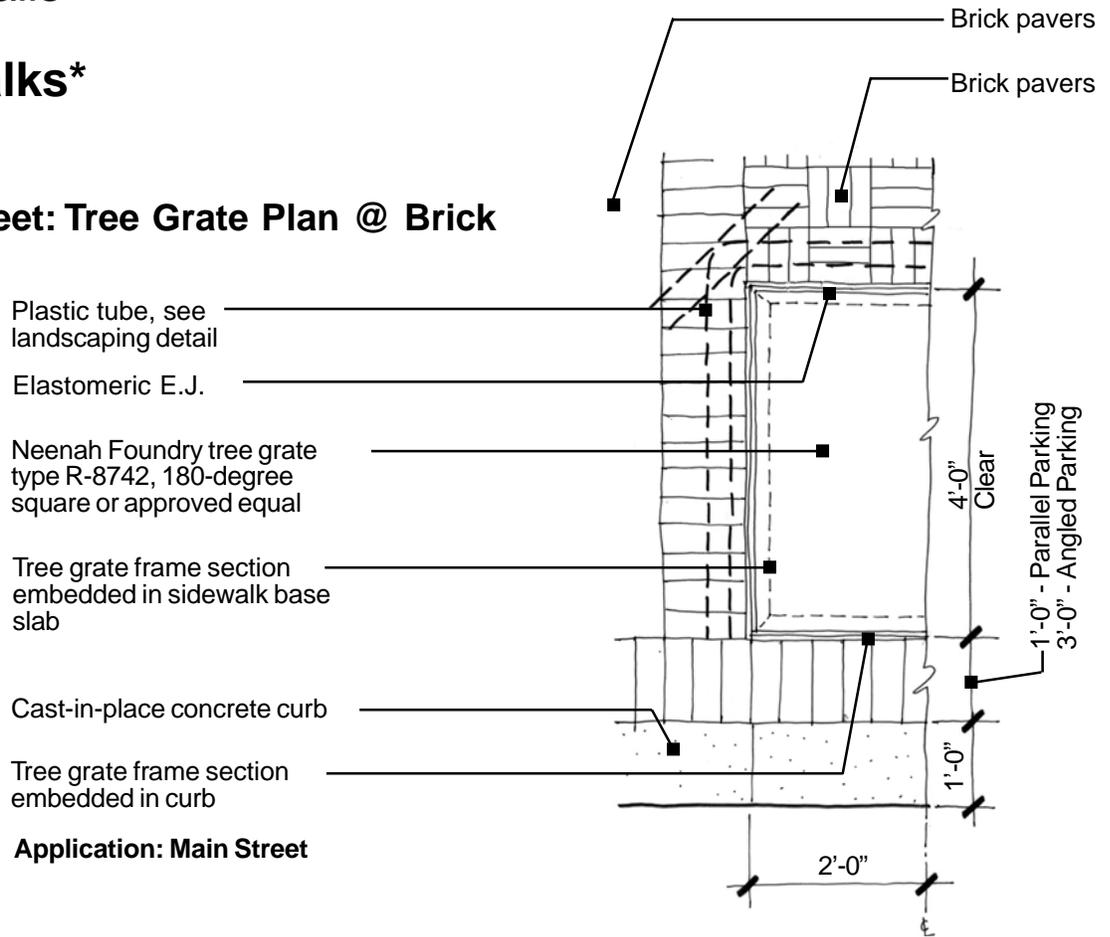
Application: All streets except Main Street

* Final construction design is to be consistent with dimensions and design details to the greatest extent practicable. Modifications of typical dimensions may be required due to right-of-way or other dimensional and design constraints and needs.

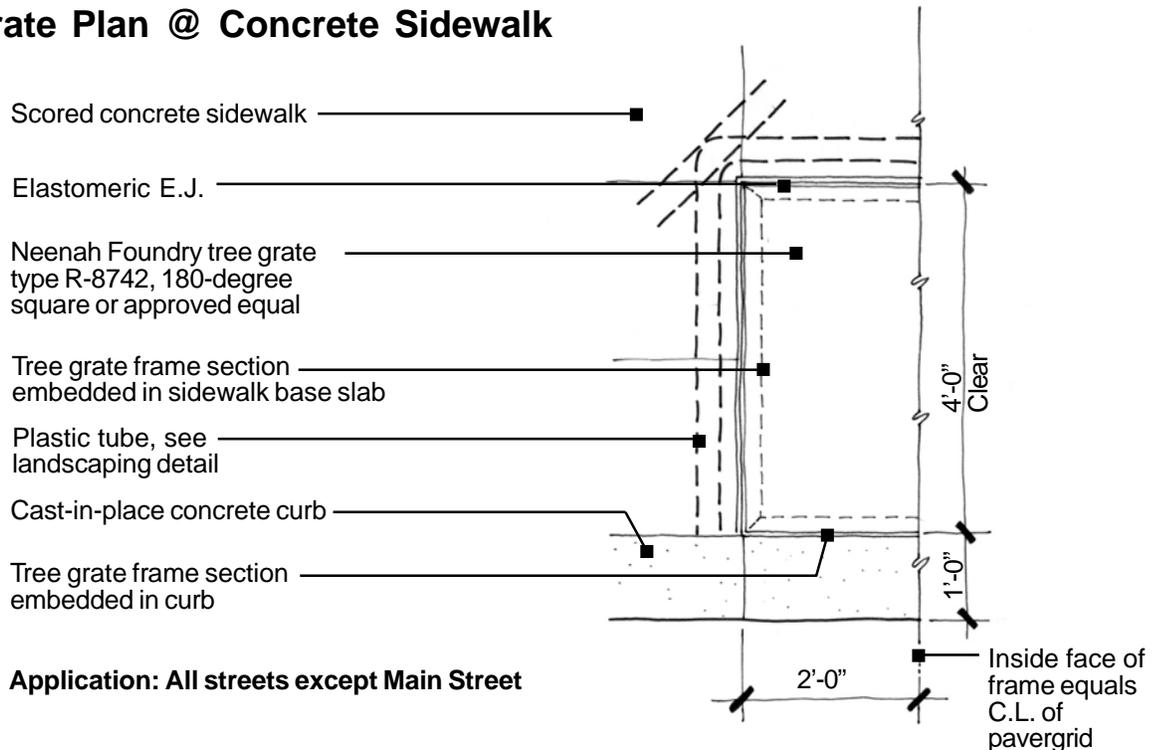
Design Details

3.2 Sidewalks*

E.4 Main Street: Tree Grate Plan @ Brick Sidewalk



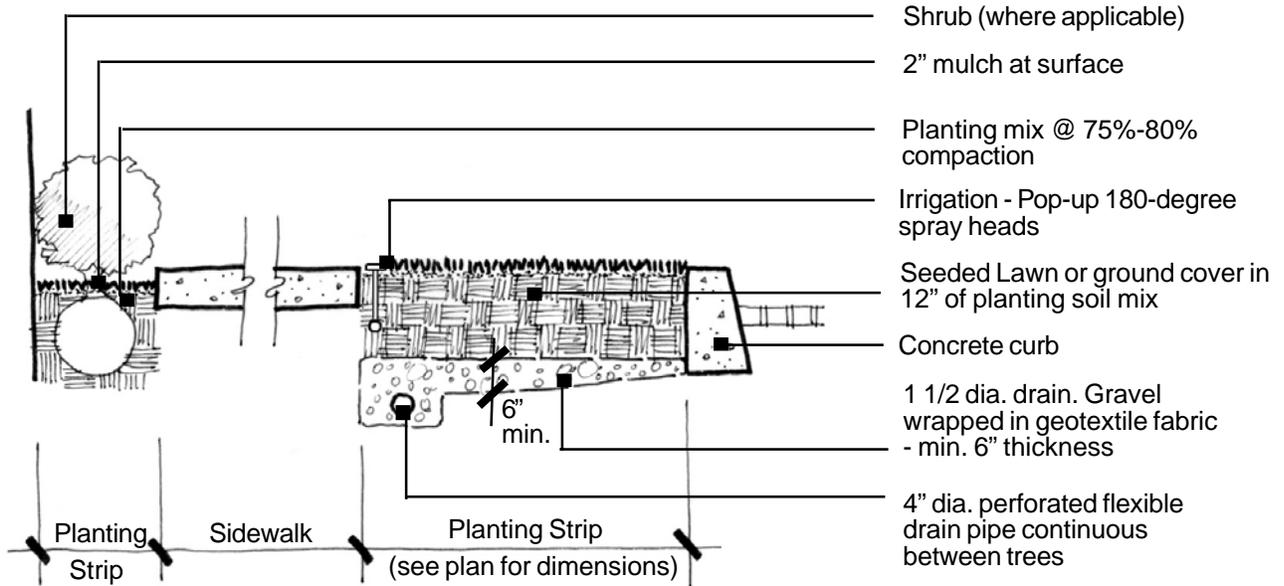
E.5 Tree Grate Plan @ Concrete Sidewalk



Design Details

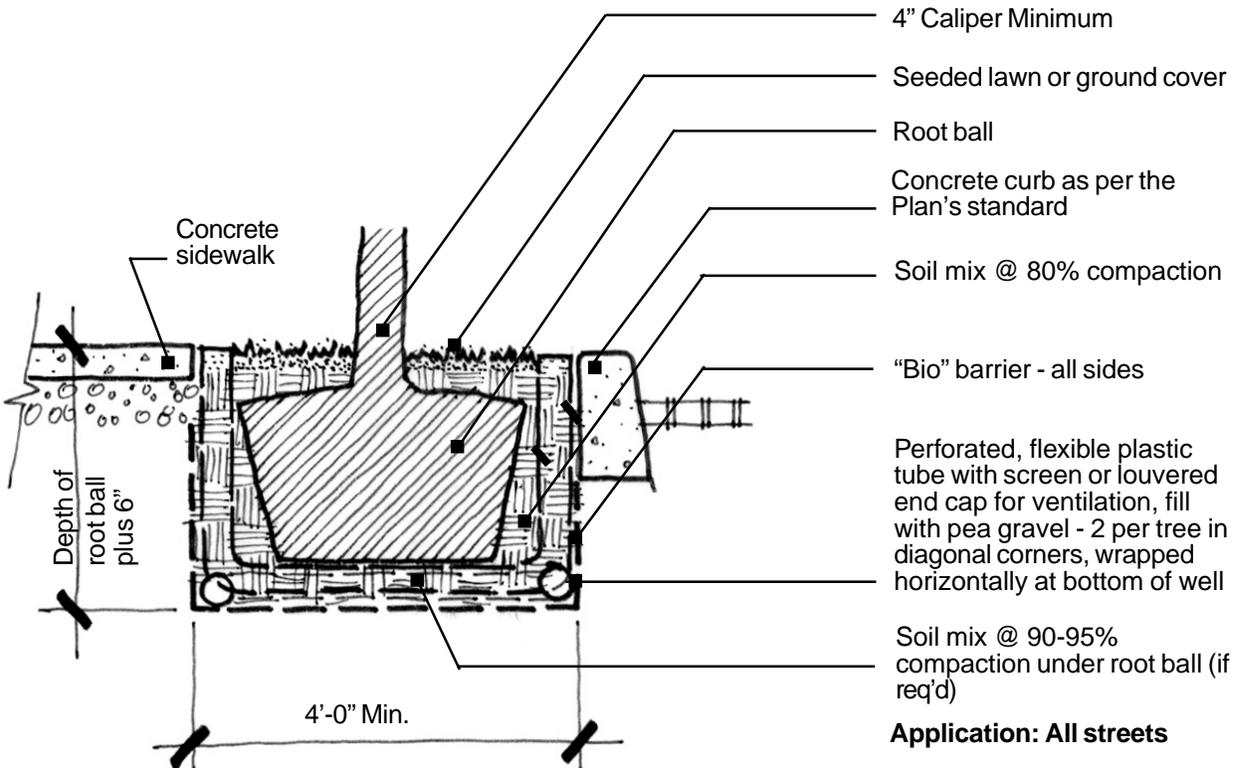
3.3 Landscape

A. Pervious Continuous Landscape Strip



Application: All streets

B. Tree Well Section @ Landscape Strip



Application: All streets

Design Details

3.3 Landscape

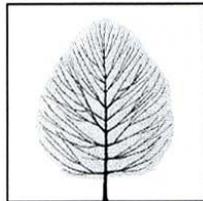
C. Plant Materials

Canopy Tree Planting

Sunset Red Maple (*Acer rubrum*)

The canopy street tree has attractive, bright red flowers that appear before the leaves. Its fall foliage ranges from orange-red to scarlet.

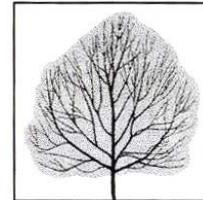
Height: 45'
Spread: 35'
Shape: Upright branching, oval
Foliage: Dark green, glossy
Fall Color: Brilliant orange-red to scarlet



Red Oak (*Quercus rubra*)

A fast-growing tree for big spaces. The leaves, which are lustrous dark green in the summer, turn a beautiful red in the fall.

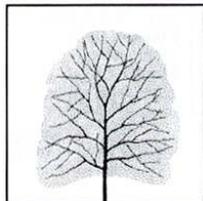
Height: 50'
Spread: 45'
Shape: Rounded
Foliage: Dark green
Fall Color: Red



Skyline Honeylocust (*Gleditsia triacanthos* 'Skycole')

Irregular branching pattern provides interest during winter seasons. The small leaflets create a filtered, dappled light on streetscape.

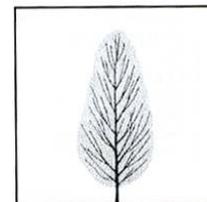
Height: 45'
Spread: 35'
Shape: Broadly Pyramidal
Foliage: Fine textured, medium green
Fall Color: Golden



Chanticleer Pear (*Pyrus calleryana* 'Chanticleer')

Full of white blossoms in the spring and colorful red foliage in the fall. Fruit is insignificant and does not pose a litter problem

Height: 60'
Spread: 20'
Shape: Upright, narrowly pyramidal
Foliage: Green, glossy
Fall Color: Reddish
Flower: White, in clusters



Design Details

3.3 Landscape

C. Plant Materials

Canopy Tree Planting

Giant Sequoia (*Sequoiadendron giganteum*)

Large, slow-growing and extremely long-lived tree. Their formal pyramidal form creates a distinctive skyline, such as the one formed along McLoughlin Blvd. just north of downtown Milwaukie.

Height: 100' (est.)
 Spread: 50' (est.)
 Shape: Upright, narrowly pyramidal
 Foliage: Dark green
 Fall Color: No change



Incense Cedar (*Calocedrus decurrens*)

Large, slow-growing and extremely long-lived tree. Their formal columnar form will not encroach into railroad right-of-way significantly.

Height: 100' (est.)
 Spread: 30' (est.)
 Shape: Columnar
 Foliage: Dark green
 Fall Color: No change



Ornamental Accents

Kwanzan Cherry (*Prunus serrulate* 'Kwanzan')

This Japanese Cherry tree has beautiful pink spring blossoms and insignificant fruit that does not pose a litter problem. It is appropriate for intersection accents.

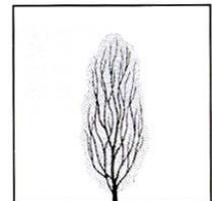
Height: 30'
 Spread: 20'
 Shape: Stiffly vase shaped
 Foliage: Dark green
 Fall Color: Bronze-orange to orange-red
 Flower: Double, rosy pink in clusters



Frans Fontaine Hornbeam (*Carpinus betulus* 'Frans Fontaine')

The tree has a dense upright branching pattern. With glossy dark green foliage, it is appropriate for boulevard medians.

Height: 35'
 Spread: 15'
 Shape: Narrow, columnar
 Foliage: Dark green
 Fall Color: Yellow



Design Details

3.3 Landscape

C. Plant Materials

Groundcover, Shrubs and Turf:

All shrubs and ground cover should be irrigated. They should be low maintenance, and provide color and interest. They should be low in height to avoid obstructing views or spreading. Groundcover should tolerate foot traffic.

Design Details

3.4 Street Lights

These design details and criteria are provided for street lights throughout the Downtown and Riverfront planning area. The details apply to only public area rights-of-way. The design guidelines document addresses exterior lighting on buildings, parking lots and other private parcels. Temporary or seasonal lights installed within the public right-of-way are also addressed in the design guidelines.

Design Details

3.4 Street Lights

A. Fixture Type and Placement

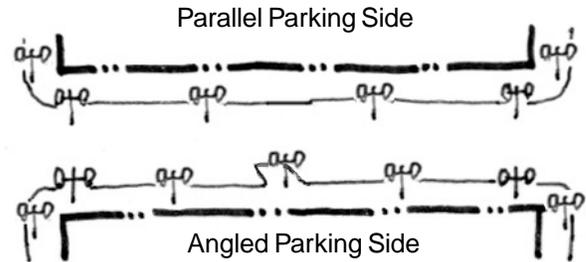
Twin Ornamental

Historic Portland-area Fixture

Ideal Placement/Block: * Nine: staggered, aligned at corners

Application: On Main Street

* Spacing may vary depending on specific conditions of each block



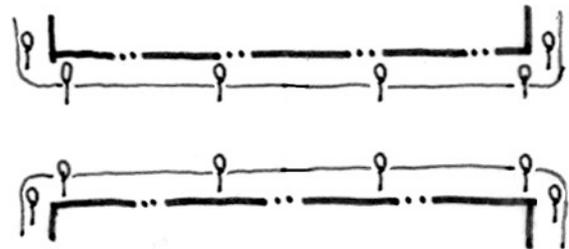
Single Ornamental

Historic Portland-area Fixture

Ideal Placement/Block: * Eight: aligned

Application: On 21st, Washington, Jefferson, Monroe, Jackson, Harrison, all new streets

* Spacing may vary depending on specific conditions of each block



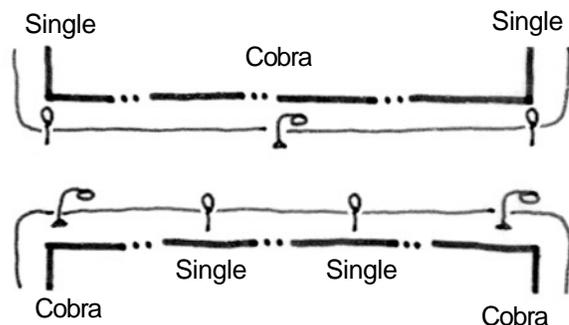
Single Ornamental and Ornamental Cobra Head

Historic Portland-area fixture and Traditional street light used on commercial and industrial streets throughout Portland area.

Ideal Placement/Block: * Seven: staggered, aligned at corners

Application: On McLoughlin Blvd.

* Spacing may vary depending on specific conditions of each block



Design Details

3.4 Street Lights

B. Fixture Types

Ornamental “Cobra Head” Light

Techtra light fixtures made of heavy cast aluminum with a protective cast aluminum cage. The fixtures utilize a 165W QL or 250W HPS lamp, which provides a color rendering white light. Mounted on Techtra decorative shepherd's crook pole, the overall height is 21' with the light center at 17' to allow for plenty of clearance for tall trucks to pass safely.

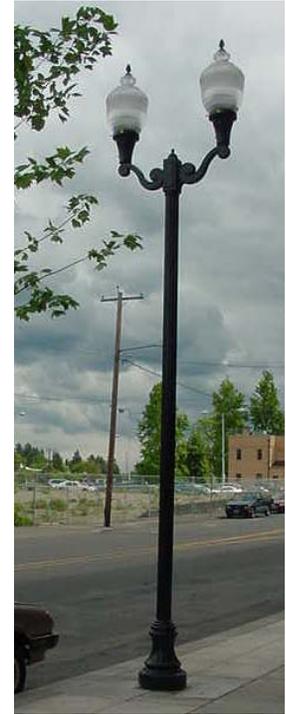
Application:
McLoughlin
Boulevard



Twin Ornamental Light

The WST Westminster, post-top acorn fixtures with band and finial typically include energy-saving 150W high-pressure sodium lamp with 9" polycarbonate globe for high efficiency. The WST Westminster fixture scales 15 9/10" x 37". The Hadco M0302 double-headed arm has a 44 1/2" width while the Hadco P-2065 ornamental pole sits on a 16" x 20" high base with a 5' diameter flat flute shaft and .186 to .260 aluminum wall thickness.

Application: Main Street only



Single Ornamental Light

The WST Westminster, post-top acorn fixtures with band and finial typically include energy-saving 150W high-pressure sodium lamp with 9" polycarbonate globe for high efficiency. The WST Westminster fixture scales 15 9/10" x 37". The Hadco P-2065 ornamental pole sits on a 16" x 20" high base with a 5' diameter flat flute shaft and .186 to .260 aluminum wall thickness.

Application: All streets except Main Street, and Pathways as indicated (See Street Lights Diagram, Section 1.19)



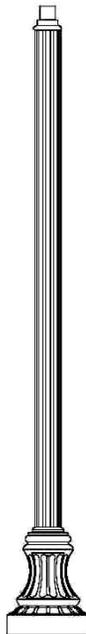
Design Details

3.4 Street Lights

C. Fixture Components

Ornamental Pole

The Hadco P-2065 light pole (or PGE-approved equivalent) has a base diameter of 16" and a height of 20". It has a 5" flat fluted shaft and .186 to .260 aluminum wall thickness.



Application: All streets

Bracket

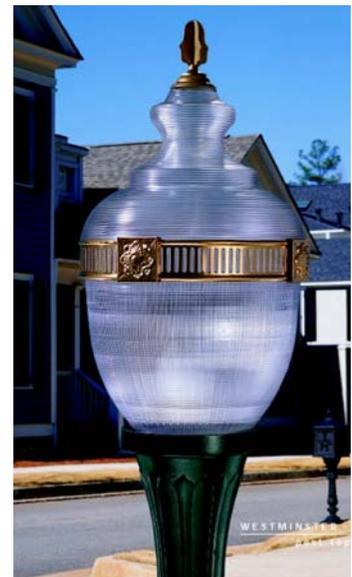
The twin ornamental light utilizes the Hadco M0302 double-headed modular arm bracket (or PGE-approved equivalent). Its heavy wall cast aluminum construction can carry large light fixtures with more than a 3' separation.



Application: Main Street only

Lighting Fixture

The WST Westminster, post-top acorn with band and finial lighting fixture (or PGE-approved equivalent) measures 15 9/10" x 36" and comes in a black cast aluminum housing. It fits a 5" flat fluted pole and carries a globe of tough high-impact polycarbonate or acrylic with a vintage glasslike appearance. The fixture holds integral ballast and is secured to the pole with three set mounting bolts.



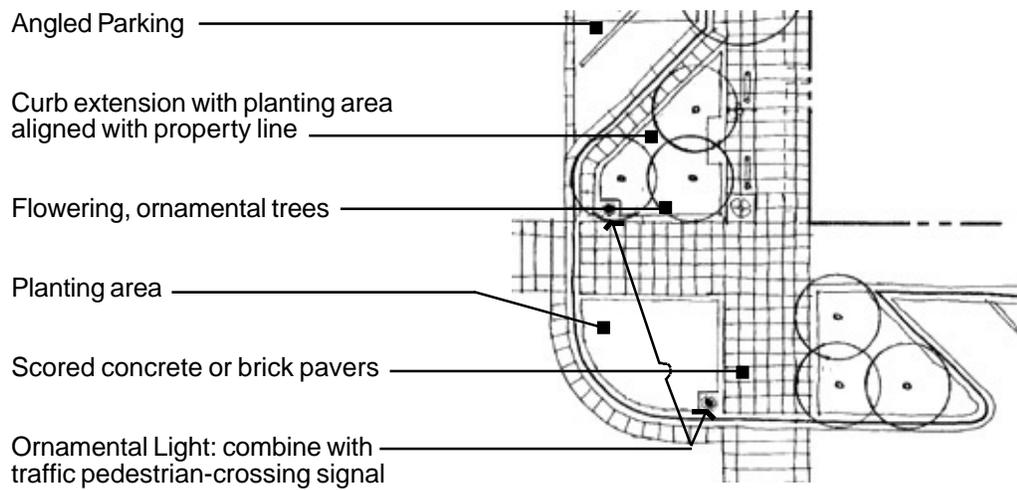
Application: All Streets except McLoughlin

Design Details

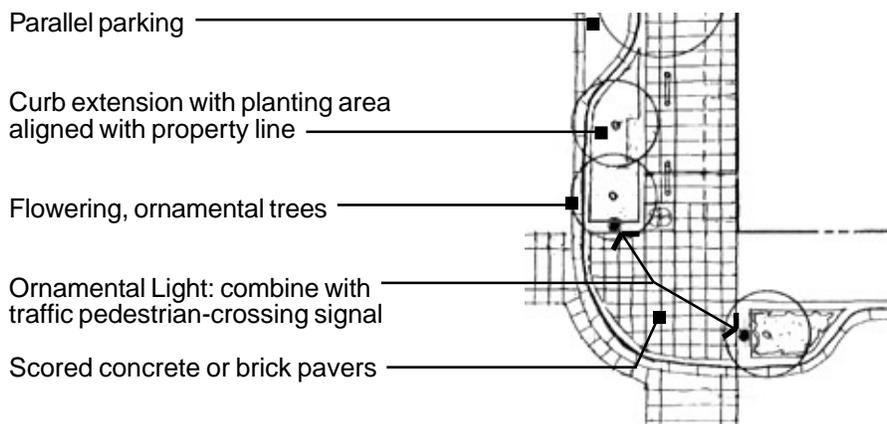
3.4 Street Lights

D. Fixture Placement - Corner Plan Details

Application: Main Street at Angled Parking Blocks



Application: Main Street at Parallel Parking Blocks Other Streets with Curb Extensions



Design Details

3.5 Street Furniture

These specifications apply only to street furniture within the public right-of-way.

Benches



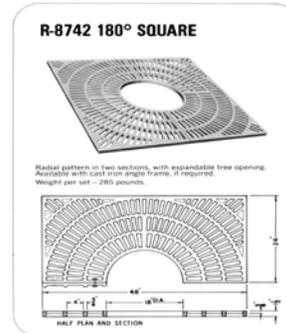
Victorian-era styled bench made of wood with cast-iron end frames. Fairweather Site Furnishings & Accessories Model TD-3 (or equal)

Trash Receptacles



Flared steel trash receptacles with an optional ash trap (or right). Fairweather Site Furnishings & Accessories Model TR-12.24, black (or equal)

Iron Tree Grates



Radial Pattern Iron Tree Grates with expandable tree opening.
Neenah Foundry R-8742
180 Degree Square

Bollards



Ornamental bollard, black, height of 36" - 42"
Type to be determined.
Set bollards approximately 5' on-center

Fountains



Ornamental water fountain with continuous flowing bubbler to be determined

Design Details

3.6 Bicycle Facilities

These bicycle-facility details apply only to public right-of-way areas. Facilities with private redevelopment parcels must be consistent with existing standards and ordinances.

Design Details

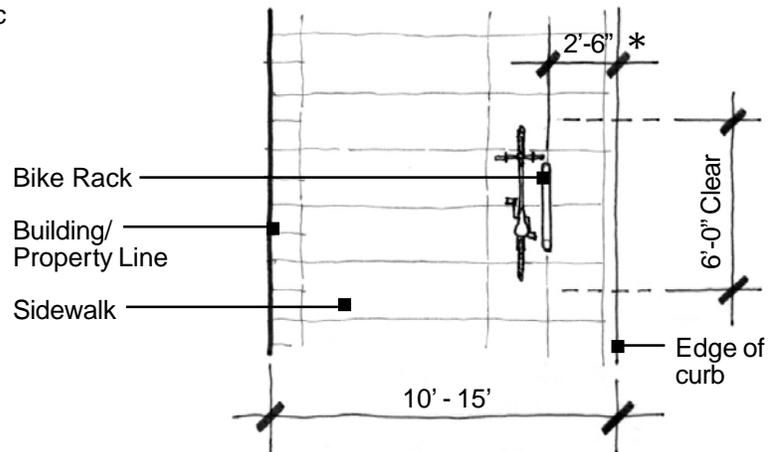
3.6 Bicycle Facility Details and Design Criteria

A. Sidewalk Bike Rack Location *

* 4 racks per block on Main Street, and 2 racks per blocks on other streets (not including groupings in front of public facilities)



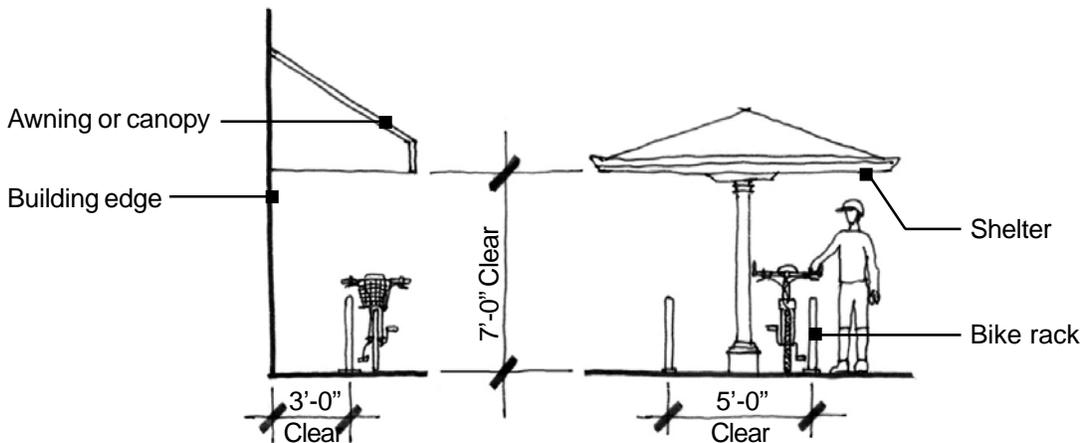
"Hitchin' Post" bike rack by Pilot Rock, Color: Black (or equal)



* - 2'-0" dimension in an 8' sidewalk

B. Covered Bike Rack Requirements

(Optional: Where bicycles are covered, these minimum standards must be met)



Downtown Maintenance

It is important that the City of Milwaukee and the Milwaukee Downtown Business Association view clean and safe streets as a means to ensure good business and stable property values. In this sense, a downtown is only as good as its worst blocks.

Special services to ensure that downtown Milwaukee is safe, inviting and active for businesses, residents, and visitors include:

- Graffiti and litter removal
- Regular pressure washing of sidewalks
- Assistance in prompt repair of damaged windows and minimizing the occurrence of boarded up storefronts
- Downtown Milwaukee guides to assist visitors and provide security

Coordination of these services may take place through:

- A Business Improvement District (BID) which would assess building owners for services;
- The City of Milwaukee; or
- Individually, by property owners



